Atmospheric Analysis & Consulting, Inc.

Client	: SWAPE
Client Project Name	: Bridgeton Sanitary Landfill Air Quality Assessment
Client Project No.	: NA
AAC Project No.	: 131131
Reporting Date	: 08/23/2013

On August 22, 2013, Atmospheric Analysis & Consulting, Inc. received four (4) DNPH impregnated silica gel cartridges for Carbonyls analysis by EPA Method TO-11A. Upon receipt the samples were assigned unique Laboratory ID numbers as follows:

Client Sample ID	AAC Sample ID
U-1 FR Service DNPH	131131-65780
U-2 W6 DNPH	131131-65781
D-1 W2 DNPH	131131-65782
D-1 K DNPH	131131-65783

TO-11A - HPLC/UV analysis - A 10µL aliquot of the extract was analyzed by HPLC/UV following the analytical protocols of EPA Method TO-11A as specified in the SOW. Holding times for preparation and analysis were complied with.

No problems were encountered during the receipt, preparation, and/or analysis of these samples. The test results included in this report meet all requirements of the NELAC Standards and/or AAC SOP# TO.11.09.

I certify that this data is technically accurate, complete and in compliance with the terms and conditions of the contract. The Laboratory Director or his designee, as verified by the following signature, has authorized release of the data contained in this hardcopy data package.

If you have any questions or require further explanation of data results, please contact the undersigned.

Marcus Hueppe
Laboratory Director

This report consists of 55 pages.

ACCREDITED IN ACCORDANCE WITH nelac Certificate #E87837

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Atmospheric Analysis & Consulting, Inc.

SAMPLE RECEIPT / LOG-IN REPORT

AAC Project **131131** **Received By:** **W. Horn**

Sample Receipt Date	Project Desc	Clients ID	Matrix	Sampling Date/Time	Sampled By	Sample #	Analysis Requested
8/22/2013 0930	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-1 FR Service DNPH	Tube	8/21/2013	Client	65780	TO-11A
8/22/2013 0930	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-2 W6 DNPH	Tube	8/21/2013	Client	65781	TO-11A
8/22/2013 0930	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-1 W2 DNPH	Tube	8/21/2013	Client	65782	TO-11A
8/22/2013 0930	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-1 K DNPH	Tube	8/21/2013	Client	65783	TO-11A

TURN AROUND TIME: Normal (10days)

Lab Due Date: 8/29/2013

Total Samples: 4

REMARKS:

Samples received at 5.0*C. "Standard turn-around for all analyses. If possible deliver report within 2 weeks. Proide Level IV QC Package for all Analyses".

CHAIN OF CUSTODY RECORD / ANALYTICAL REQUEST FORM

AAC# 131131

Bridgeton Sanitary Landfill Air Quality Assessment

Client Name: SOIL / WATER AIR PROTECTION ENTERPRISE	Telephone No. / Fax No.: (310) 434-0110 / (310) 434-0011	Date: **August 21st**
Project Manager: PAUL ROSENFELD, PH.D.		Page 1 of 1
Address: 1640 FIFTH STREET, SUITE 204, SANTA MONICA, CA 90401		
Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT		
Sampled By: John Blank	Sampler Signature: John Blank	

LAB ID	SAMPLE ID NUMBER		Type	Date	Time	VOCS - EPA TO-15	Reduced Sulfur Compounds - ASTM D5504	Carbonyls - EPA TO-11A	Carboxlyic Acids - Tube GC-MS	HCL - NIOSH 7903	Ammonia - OSHA ID-188	SO2 - OSHA ID-200	HCN - NIOSH 6010	Amines - NIOSH 2010M	Fixed Gases - EPA 3C	PAHs / Dioxins EPA TO-13A / 9A	Mercury - NIOSH 6009	Odor Evaluation	Special Instructions / Conditions of Receipt		
65780	**U-1 FR Service**	DNPH	Tube	August 21st	240 min			X											Tube #	4440601540	**259.08 L**
65781	**U-2 W6**	DNPH	Tube	August 21st	240 min			X											Tube #	4440600712	**254.40 L**
65782	**D-1 W2**	DNPH	Tube	August 21st	240 min			X											Tube #	4440600711	**258.35 L**
65783	**D-1 K**	DNPH	Tube	August 21st	240 min			X											Tube #	4440600716	**257.64 L**

Requested Turnaround Time: Standard turn-around for all analyses. If possible deliver report within 2 weeks.			QC Requirements: Provide Level IV QC Package for all Analyses.		
Relinquished By: John Blank	Date: August 21st	12 Noon	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 8/22/13	Time: 0930

AIR SAMPLING PUMP CALIBRATION LOG

Bridgeton Sanitary Landfill Air Quality Assessment

COMPLETED BY: John Blank

DATE: August 21st, 2013

PAGE: 1 OF 1

CALIBRATION INSTRUMENT : ***Biose Defender510***

INITIAL PUMP SETUP (PRE-SAMPLING FLOW CHECK)

Sample ID e.g. acetaldehyde	Analyte	SKC Tube ID 226-120	Air Pump Serial No.	START		END		Average	Total	Total Volume
				Flow Rate (L/min)	Start Time (24 Hour)	Flow Rate (L/min)	Stop Time (24 Hour)	Flow Rate L/Min	Sampled Minutes	Liters
U-1 FR Service	Aldehydes	4440601540	59912	1.029	10:12:00	1.13	14:12:00	1.080	240	259.08
U-2 W6	Aldehydes	4440600712	67992	1.039	10:30:00	1.081	14:30:00	1.060	240	254.40
D-1 W2	Aldehydes	4440600711	67385	1.044	10:40:00	1.065	14:40:00	1.055	245	258.35
D-1 K	Aldehydes	4440600716	67835	1.049	:10:55	1.098	14:55:00	1.074	240	257.64

NOTES / LOCATION REFERENCES

TUBES:

ANALYTE	SKC TUBE ID
Aldehydes	226-120
Amines	226-10
Ammonia	226-29
Carboxylic Acids	226-55

SKC TUBE ID
226-10-03
226-28
226-17-1A
226-80

SOIL / WATER / AIR PROTECTION ENTERPRISE

Results

Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT
Analysis of Carbonyls by EPA Method TO-11A

Client : SWAPE
Client Project Name : Bridgetown Sanitary Landfill Air Quality Assessment
AAC Project No. : 131131
Analyst : EG/HP
Units : ppbv

Sampling Date (s) : 08/21/2013
Receiving Date : 08/22/2013
Analysis Date : 08/22/2013
Reporting Date : 08/23/2013

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 FR Service DNPH	131131-65780	0.646	0.365	<SRL	1.69	<SRL	0.443	0.315	0.392	<SRL	0.085	<SRL	<SRL
SRL		0.236	0.161	0.126	0.122	0.122	0.101	0.101	0.098	0.067	0.082	0.059	0.071
U-2 W6 DNPH	131131-65781	0.537	0.367	<SRL	1.74	<SRL	0.330	0.278	0.329	<SRL	<SRL	<SRL	<SRL
SRL		0.240	0.164	0.129	0.124	0.124	0.103	0.103	0.100	0.068	0.084	0.060	0.072
D-1 W2 DNPH	131131-65782	0.546	0.202	<SRL	1.51	<SRL	0.260	0.200	0.274	<SRL	<SRL	<SRL	<SRL
SRL		0.236	0.161	0.127	0.122	0.122	0.101	0.101	0.098	0.067	0.082	0.059	0.071
D-1 K DNPH	131131-65783	1.90	0.542	<SRL	1.45	<SRL	1.49	0.337	0.348	<SRL	0.184	<SRL	<SRL
SRL		0.237	0.162	0.127	0.123	0.123	0.102	0.102	0.099	0.067	0.083	0.059	0.071

<SRL-compound was analyzed for but not detected at or above the SRL (Sample Reporting Limit)

Marcus Hueppe
Laboratory Director

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Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT
Analysis of Carbonyls by EPA Method TO-11A

Client	: SWAPE	Sampling Date (s)	: 08/21/2013
Client Project Name	: Bridgetown Sanitary Landfill Air Quality Assessment	Receiving Date	: 08/22/2013
AAC Project No.	: 131131	Analysis Date	: 08/22/2013
Analyst	: EG/HP	Reporting Date	: 08/23/2013
Units	: ug/m^3		

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 FR Service DNPH	131131-65780	0.793	0.658	<SRL	4.01	<SRL	1.27	0.903	1.16	<SRL	0.299	<SRL	<SRL
SRL		0.289	0.289	0.289	0.289	0.289	0.289	0.289	0.289	0.289	0.289	0.289	0.289
U-2 W6 DNPH	131131-65781	0.659	0.662	<SRL	4.14	<SRL	0.946	0.797	0.972	<SRL	<SRL	<SRL	<SRL
SRL		0.295	0.295	0.295	0.295	0.295	0.295	0.295	0.295	0.295	0.295	0.295	0.295
D-1 W2 DNPH	131131-65782	0.670	0.363	<SRL	3.58	<SRL	0.746	0.574	0.807	<SRL	<SRL	<SRL	<SRL
SRL		0.290	0.290	0.290	0.290	0.290	0.290	0.290	0.290	0.290	0.290	0.290	0.290
D-1 K DNPH	131131-65783	2.34	0.976	<SRL	3.46	<SRL	4.26	0.965	1.03	<SRL	0.650	<SRL	<SRL
SRL		0.291	0.291	0.291	0.291	0.291	0.291	0.291	0.291	0.291	0.291	0.291	0.291

<SRL-compound was analyzed for but not detected at or above the SRL (Sample Reporting Limit)

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Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT
Analysis of Carbonyls by EPA Method TO-11A

Client : SWAPE
Client Project Name : Bridgetown Sanitary Landfill Air Quality Assessment
AAC Project No. : 131131
Analyst : EG/HP
Units : ug/sample

Sampling Date (s) : 08/21/2013
Receiving Date : 08/22/2013
Analysis Date : 08/22/2013
Reporting Date : 08/23/2013

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 FR Service DNPH	131131-65780	0.206	0.170	<SRL	1.04	<SRL	0.329	0.234	0.300	<SRL	0.077	<SRL	<SRL
SRL		0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075
U-2 W6 DNPH	131131-65781	0.168	0.168	<SRL	1.05	<SRL	0.241	0.203	0.247	<SRL	<SRL	<SRL	<SRL
SRL		0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075
D-1 W2 DNPH	131131-65782	0.173	0.094	<SRL	0.926	<SRL	0.193	0.148	0.209	<SRL	<SRL	<SRL	<SRL
SRL		0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075
D-1 K DNPH	131131-65783	0.602	0.251	<SRL	0.890	<SRL	1.10	0.249	0.264	<SRL	0.167	<SRL	<SRL
SRL		0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075

<SRL-compound was analyzed for but not detected at or above the SRL (Sample Reporting Limit)

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QA/QC Summary

Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

TO-11A

HPLC Calibration Verification of the 06/11/2013 Calibration

Analysis Date : 08/22/2013
Analyst : HP/EG

Instrument ID : HPLC 01

Opening CCV

Standard Concentration (ug/mL)	*Formaldehyde (ug/mL)*	*Acetaldehyde (ug/mL)*	*Acrolein (ug/mL)*	*Acetone (ug/mL)*	*Propionaldehyde (ug/mL)*	*Crotonaldehyde (ug/mL)*	*Methacrolein (ug/mL)*	*MEK & Butyraldehyde (ug/mL)*	*Benzaldehyde (ug/mL)*	*Valeraldehyde (ug/mL)*	*m-Tolualdehyde (ug/mL)*	*Hexaldehyde (ug/mL)*
2.50	2.30	2.33	2.31	2.33	2.35	2.31	2.32	4.65	2.35	2.32	2.30	2.34
Accuracy (%)*	92.0	93.2	92.4	93.2	94.0	92.4	92.8	93.0	94.0	92.8	92.0	93.6

Continuing CCV

Standard Concentration (ug/mL)	*Formaldehyde (ug/mL)*	*Acetaldehyde (ug/mL)*	*Acrolein (ug/mL)*	*Acetone (ug/mL)*	*Propionaldehyde (ug/mL)*	*Crotonaldehyde (ug/mL)*	*Methacrolein (ug/mL)*	*MEK & Butyraldehyde (ug/mL)*	*Benzaldehyde (ug/mL)*	*Valeraldehyde (ug/mL)*	*m-Tolualdehyde (ug/mL)*	*Hexaldehyde (ug/mL)*
2.50	2.28	2.29	2.28	2.29	2.32	2.29	2.30	4.60	2.32	2.29	2.28	2.32
Accuracy (%)*	91.2	91.6	91.2	91.6	92.8	91.6	92.0	92.0	92.8	91.6	91.2	92.8

Continuing CCV

Standard Concentration (ug/mL)	*Formaldehyde (ug/mL)*	*Acetaldehyde (ug/mL)*	*Acrolein (ug/mL)*	*Acetone (ug/mL)*	*Propionaldehyde (ug/mL)*	*Crotonaldehyde (ug/mL)*	*Methacrolein (ug/mL)*	*MEK & Butyraldehyde (ug/mL)*	*Benzaldehyde (ug/mL)*	*Valeraldehyde (ug/mL)*	*m-Tolualdehyde (ug/mL)*	*Hexaldehyde (ug/mL)*
2.50	2.34	2.36	2.35	2.37	2.38	2.35	2.38	4.72	2.39	2.35	2.35	2.39
Accuracy (%)*	93.6	94.4	94.0	94.8	95.2	94.0	95.2	94.4	95.6	94.0	94.0	95.6

ClosingCCV

Standard Concentration (ug/mL)	*Formaldehyde (ug/mL)*	*Acetaldehyde (ug/mL)*	*Acrolein (ug/mL)*	*Acetone (ug/mL)*	*Propionaldehyde (ug/mL)*	*Crotonaldehyde (ug/mL)*	*Methacrolein (ug/mL)*	*MEK & Butyraldehyde (ug/mL)*	*Benzaldehyde (ug/mL)*	*Valeraldehyde (ug/mL)*	*m-Tolualdehyde (ug/mL)*	*Hexaldehyde (ug/mL)*
2.50	2.30	2.34	2.33	2.34	2.35	2.33	2.34	4.69	2.36	2.32	2.32	2.36
Accuracy (%)*	92.0	93.6	93.2	93.6	94.0	93.2	93.6	93.8	94.4	92.8	92.8	94.4

Second Source

Standard Concentration (ug/mL)	*Formaldehyde (ug/mL)*	*Acetaldehyde (ug/mL)*	*Acrolein (ug/mL)*	*Acetone (ug/mL)*	*Propionaldehyde (ug/mL)*	*Crotonaldehyde (ug/mL)*	*Methacrolein (ug/mL)*	*MEK & Butyraldehyde (ug/mL)*	*Benzaldehyde (ug/mL)*	*Valeraldehyde (ug/mL)*	*m-Tolualdehyde (ug/mL)*	*Hexaldehyde (ug/mL)*
2.50	2.29	2.30	2.29	2.31	2.34	2.29	2.30	4.63	2.33	2.30	2.30	2.33
Accuracy (%)*	91.6	92.0	91.6	92.4	93.6	91.6	92.0	92.6	93.2	92.0	92.0	93.2

*Must be 100 ± 10%

Marcus Hueppe
Laboratory Director

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Quality Control/Quality Assurance Report

TO-11A

Laboratory Control Spike Analysis

Analysis Date : 08/22/2013 Analyst : HP/EG Instrument ID : HPLC 01

Analytes	*Formaldehyde (ug/mL)*	*Acetaldehyde (ug/mL)*	*Acrolein (ug/mL)*	*Acetone (ug/mL)*	*Propionaldehyde (ug/mL)*	*Crotonaldehyde (ug/mL)*	*Methacrolein (ug/mL)*	*MEK & Butyraldehyde (ug/mL)*	*Benzaldehyde (ug/mL)*	*Valeraldehyde (ug/mL)*	*m-Tolualdehyde (ug/mL)*	*Hexaldehyde (ug/mL)*
Laboratory Control Spike 1												
Sample Concentration (ug/mL)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Spike Concentration (ug/mL)	0.379	0.379	0.379	0.379	0.379	0.379	0.379	0.758	0.379	0.379	0.379	0.379
Spiked Sample Concentration (ug/mL)	0.378	0.366	0.383	0.365	0.393	0.371	0.418	0.718	0.368	0.371	0.383	0.377
Spike Recovery (%)*	100	96.7	101	96.4	104	97.8	110	94.7	97.1	97.9	101	100

*Must be 100 ± 15%

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Laboratory Director

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Quality Control/Quality Assurance Report

TO-11A

Matrix Spike Analysis

Analysis Date : 08/22/2013 Analyst : HP/EG Instrument ID : HPLC 01

Analytes	*Formaldehyde (ug/mL)*	*Acetaldehyde (ug/mL)*	*Acrolein (ug/mL)*	*Acetone (ug/mL)*	*Propionaldehyde (ug/mL)*	*Crotonaldehyde (ug/mL)*	*Methacrolein (ug/mL)*	*MEK & Butyraldehyde (ug/mL)*	*Benzaldehyde (ug/mL)*	*Valeraldehyde (ug/mL)*	*m-Tolualdehyde (ug/mL)*	*Hexaldehyde (ug/mL)*
Sample ID	131114-65647											
Sample Concentration (ug/mL)	0.000	0.007	0.000	0.063	0.004	0.007	0.000	0.008	0.006	0.009	0.015	0.005
Spike Concentration (ug/mL)	1.25	1.25	1.25	1.25	1.25	1.25	1.25	2.50	1.25	1.25	1.25	1.25
Spiked Sample Concentration (ug/mL)	1.15	1.15	1.18	1.25	1.19	1.20	1.23	2.37	1.20	1.19	1.21	1.17
Duplicate Spiked Sample Concentration (ug/mL)	1.15	1.15	1.18	1.25	1.19	1.19	1.23	2.35	1.20	1.19	1.20	1.17
Spike Recovery (%)*	92.0	91.4	94.4	95.0	94.9	95.5	98.4	94.5	95.6	94.5	95.6	93.2
Dulicate Spike Recovery (%)*	92.0	91.4	94.4	95.0	94.9	94.7	98.4	93.7	95.6	94.5	94.8	93.2
RPD**	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.8	0.0	0.0	0.8	0.0

*Must be 100± 25%

** Must be ≤ 25%

Marcus Hueppe
Laboratory Director

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Quality Control/Quality Assurance Report
TO-11A
Duplicate Analysis

Analysis Date : 08/22/2013
Analyst : HP/EG

Instrument ID : HPLC 01

Analyte	*Formaldehyde (ug/mL)*	*Acetaldehyde (ug/mL)*	*Acrolein (ug/mL)*	*Acetone (ug/mL)*	*Propionaldehyde (ug/mL)*	*Crotonaldehyde (ug/mL)*	*Methacrolein (ug/mL)*	*MEK & Butyraldehyde (ug/mL)*	*Benzaldehyde (ug/mL)*	*Valeraldehyde (ug/mL)*	*m-Tolualdehyde (ug/mL)*	*Hexaldehyde (ug/mL)*
Sample ID	131114-65647											
Sample Concentration (ug/mL)	ND	<RL	ND	0.126	<RL	<RL	ND	<RL	<RL	<RL	0.030	<RL
Duplicate Sample Concentration (ug/mL)	ND	<RL	ND	0.128	<RL	<RL	ND	<RL	<RL	<RL	0.032	<RL
RPD**	NA	NA	NA	1.5	NA	NA	NA	NA	NA	NA	5.5	NA
Sample ID	131114-65640											
Sample Concentration (ug/mL)	0.136	0.113	<RL	0.476	0.034	0.039	<RL	0.044	<RL	0.042	0.034	<RL
Duplicate Sample Concentration (ug/mL)	0.136	0.114	<RL	0.477	0.035	0.038	<RL	0.046	<RL	0.041	0.037	<RL
RPD**	0.1	0.7	NA	0.2	2.3	4.4	NA	4.5	NA	3.4	7.1	NA
Sample ID	131099-65568											
Sample Concentration (ug/mL)	<RL	0.030	ND	0.310	<RL	<RL	<RL	0.052	ND	<RL	ND	<RL
Duplicate Sample Concentration (ug/mL)	<RL	0.029	ND	0.308	<RL	<RL	<RL	0.055	ND	<RL	ND	<RL
RPD**	NA	2.1	NA	0.6	NA	NA	NA	4.9	NA	NA	NA	NA

** Must be ≤ 20%
<RL=less than the Reporting Limit
ND = Not Detected
NA=Not Applicable

Marcus Hueppe
Laboratory Director

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Quality Control/Quality Assurance Report

TO-11A

System and Method Blank Analysis

Analysis Date : 08/22/2013
Analyst : HP/EG

Instrument ID : HPLC 01

Analyte	*Formaldehyde (ug/mL)*	*Acetaldehyde (ug/mL)*	*Acrolein (ug/mL)*	*Acetone (ug/mL)*	*Propionaldehyde (ug/mL)*	*Crotonaldehyde (ug/mL)*	*Methacrolein (ug/mL)*	*MEK & Butyraldehyde (ug/mL)*	*Benzaldehyde (ug/mL)*	*Valeraldehyde (ug/mL)*	*m-Tolualdehyde (ug/mL)*	*Hexaldehyde (ug/mL)*
Opening Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Method Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Continuing Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Continuing Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Closing Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Reporting Limit	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025

RL= Reporting Limit
<RL=less than the Reporting Limit

Marcus Hueppe
Laboratory Director

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Calibration Summary

File Name: C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Version: 6

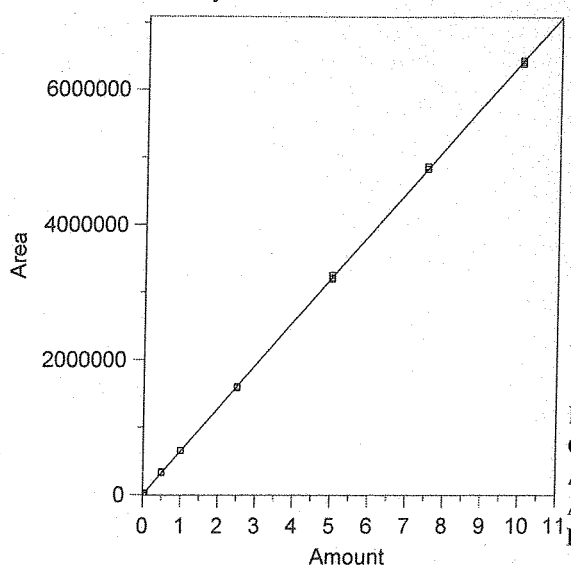
Creator: EG/HP
Description: EPA TO-11

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 1000
Reference peak area reject threshold: 1000
Amount units: ug/ml
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 Formaldehyde



Expected retention time:	2.691 minutes
Search window:	0.1 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

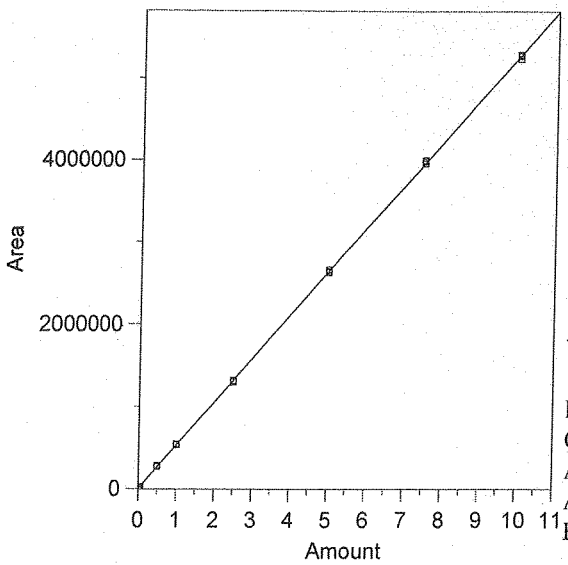
$Y = 643471.9 X + 0$

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9999344
Average error:	1.932%
Average CF:	653816.2
RSD:	2.187%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	3408.358	681671.6	5.937	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	3325.732	665146.4	3.368	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	3366.37	673274.1	4.631	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	16194.19	647767.6	0.668	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	16179.21	647168.4	0.574	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	16232.13	649285.2	0.903	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	33956.52	679130.4	5.542	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	33691.46	673829.2	4.718	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	33082.47	661649.4	2.825	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	342894.1	685788.2	6.576	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	326442.5	652885	1.463	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	328901	657802	2.227	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	659323.3	659323.3	2.463	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	652994.7	652994.7	1.480	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	653589.6	653589.6	1.572	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	1593441	637376.4	-0.947	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	1584858	633943.2	-1.481	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1606654	642661.6	-0.126	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	3196329	639265.8	-0.654	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	3251038	650207.6	1.047	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	3213737	642747.4	-0.113	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	4829078	643877.1	0.063	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	4862793	648372.4	0.762	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	4865866	648782.1	0.825	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	6411879	641187.9	-0.355	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	6443770	644377	0.141	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	6389328	638932.8	-0.705	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

2 Acetaldehyde



Expected retention time:	3.293 minutes
Search window:	0.3 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

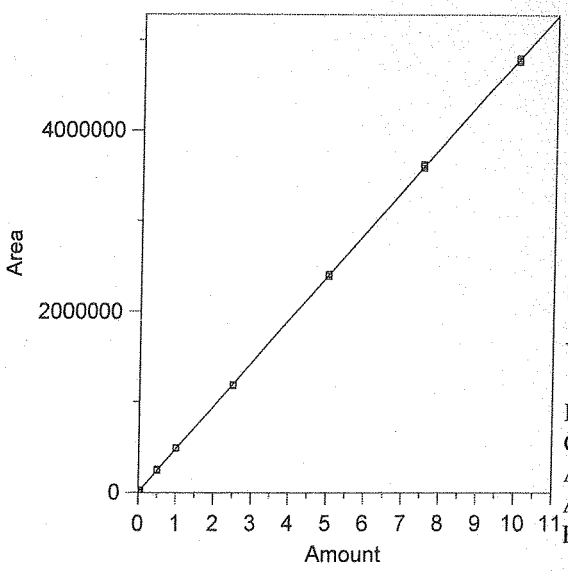
Y = 528411.2 X + 0

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9999362
Average error:	1.513%
Average CF:	534461.4
RSD:	1.856%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2781.029	556205.8	5.260	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	2639.74	527948	-0.088	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2713.861	542772.3	2.718	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	13324.46	532978.4	0.864	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	13196.94	527877.6	-0.101	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	13319.8	532792	0.829	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	27360.74	547214.8	3.559	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	27153.9	543078	2.776	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	26813.58	536271.6	1.488	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	281357.4	562714.8	6.492	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	269068.5	538137	1.841	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	269886.8	539773.6	2.150	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	541849.3	541849.3	2.543	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	535548.3	535548.3	1.351	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	536037.3	536037.3	1.443	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	1304421	521768.4	-1.257	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	1298271	519308.4	-1.723	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1316882	526752.8	-0.314	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	2629002	525800.4	-0.494	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	2663350	532670	0.806	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	2644688	528937.6	0.100	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	3962025	528270	-0.027	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	3985977	531463.6	0.578	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	4000077	533343.6	0.933	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	5275343	527534.3	-0.166	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	5292054	529205.4	0.150	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	5242042	524204.2	-0.796	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

3 Acrolein



Expected retention time:	3.986 minutes
Search window:	0.2 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

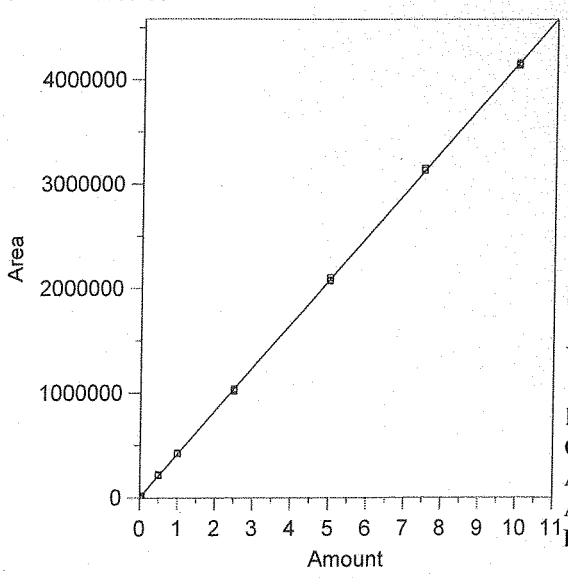
$Y = 479129.3\ X + 0$

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9999534
Average error:	1.520%
Average CF:	483677.6
RSD:	1.887%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2333.751	466750.2	-2.584	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	2468.499	493699.8	3.041	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2507.324	501464.8	4.662	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	11981.09	479243.6	0.024	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	12224.04	488961.6	2.052	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	11986.11	479444.4	0.066	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	24721.62	494432.4	3.194	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	24405.32	488106.4	1.874	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	24448.33	488966.6	2.053	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	254413	508826	6.198	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	242138.8	484277.6	1.075	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	244413.3	488826.6	2.024	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	490244.2	490244.2	2.320	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	484969.3	484969.3	1.219	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	484927.5	484927.5	1.210	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	1183948	473579.2	-1.158	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	1176976	470790.4	-1.740	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1188060	475224	-0.815	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	2384550	476910	-0.463	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	2408812	481762.4	0.550	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	2403943	480788.6	0.346	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	3586781	478237.5	-0.186	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	3607897	481052.9	0.401	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	3621213	482828.4	0.772	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	4781989	478198.9	-0.194	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	4803733	480373.3	0.260	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	4764090	476409	-0.568	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

4 Acetone



Expected retention time: 4.179 minutes
Search window: 0.4 minutes
No retention time reference component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

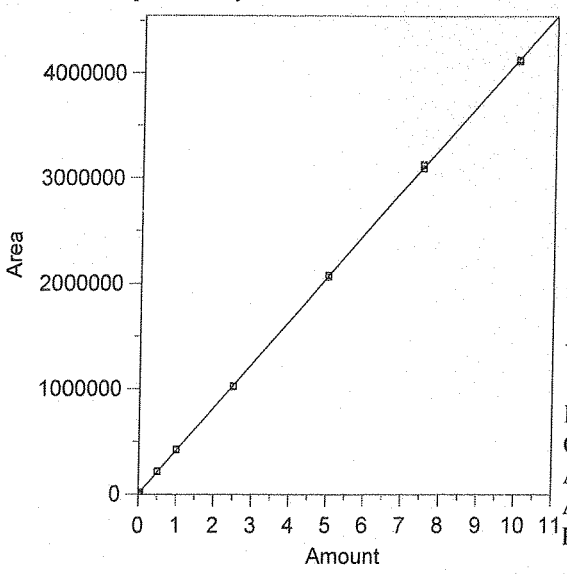
Single peak quantification by area

$Y = 416415.2 X + 0$

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9999405
Average error: 1.960%
Average CF: 422955.5
RSD: 2.274%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2238.368	447673.6	7.507	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	2171.32	434264	4.286	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2130.784	426156.8	2.339	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	10615.52	424620.8	1.971	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	10418.99	416759.6	0.083	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	10743.64	429745.6	3.201	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	21509.85	430197	3.310	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	21494.17	429883.4	3.234	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	21202.1	424042	1.832	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	223642.5	447285	7.413	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	212278.1	424556.2	1.955	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	214246.7	428493.4	2.901	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	426914.8	426914.8	2.521	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	422587.8	422587.8	1.482	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	420868.8	420868.8	1.070	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	1025289	410115.6	-1.513	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	1019650	407860	-2.054	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1038209	415283.6	-0.272	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	2070625	414125	-0.550	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	2103557	420711.4	1.032	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	2080934	416186.8	-0.055	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	3130817	417442.3	0.247	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	3151942	420258.9	0.923	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	3133901	417853.5	0.345	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	4164627	416462.7	0.011	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	4152960	415296	-0.269	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	4141528	414152.8	-0.543	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

5 Propionaldehyde



Expected retention time: 4.45 minutes
Search window: 0.5 minutes
No retention time reference component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

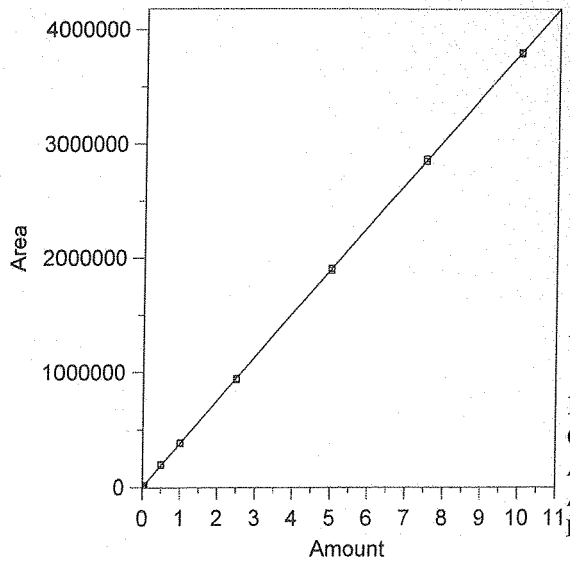
Single peak quantification by area

$Y = 413491.1\ X + 0$

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9999471
Average error: 1.596%
Average CF: 416900.7
RSD: 1.885%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2017.78	403556	-2.403	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	2120.531	424106.2	2.567	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2110.294	422058.8	2.072	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	10270.25	410810	-0.648	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	10463.54	418541.6	1.221	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	10129.01	405160.4	-2.015	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	21474.82	429496.4	3.871	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	21155.03	423100.6	2.324	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	21206.9	424138	2.575	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	218583.6	437167.2	5.726	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	211193.6	422387.2	2.151	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	211752.1	423504.2	2.422	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	425236.3	425236.3	2.841	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	416753.3	416753.3	0.789	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	420042.3	420042.3	1.584	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	1017464	406985.6	-1.573	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	1016426	406570.4	-1.674	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1025583	410233.2	-0.788	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	2060419	412083.8	-0.340	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	2076059	415211.8	0.416	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	2079987	415997.4	0.606	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	3092180	412290.7	-0.290	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	3130391	417385.5	0.942	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	3118990	415865.3	0.574	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	4134994	413499.4	0.002	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	4125538	412553.8	-0.227	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	4115842	411584.2	-0.461	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

6 Crotonaldehyde



Expected retention time: 5.222 minutes
Search window: 0.5 minutes
No retention time reference component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

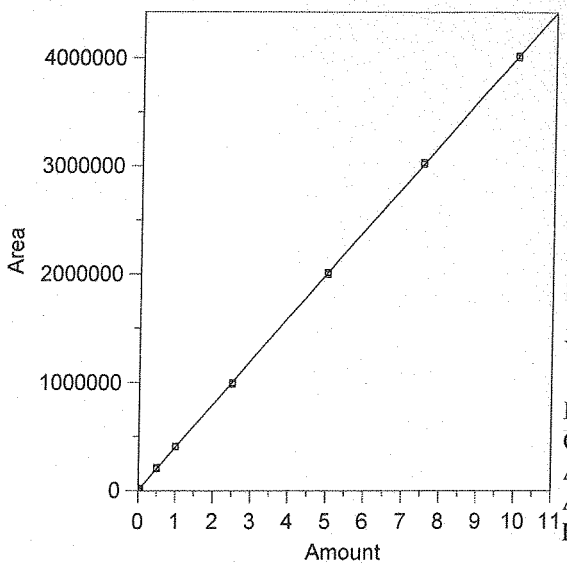
Single peak quantification by area

$Y = 380159.3\ X + 0$

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9999585
Average error: 1.483%
Average CF: 383492.5
RSD: 2.008%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1954.227	390845.4	2.811	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1853.591	370718.2	-2.483	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2006.267	401253.4	5.549	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	9500.876	380035	-0.033	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	9677.464	387098.6	1.825	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	9491.502	379660.1	-0.131	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	19612.18	392243.6	3.179	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	19377.38	387547.6	1.943	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	19062.43	381248.6	0.287	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	202454.9	404909.8	6.511	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	192705	385410	1.381	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	193772.2	387544.4	1.943	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	389857.3	389857.3	2.551	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	384117.9	384117.9	1.041	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	383544.6	383544.6	0.890	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	931914.6	372765.8	-1.945	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	933845.9	373538.3	-1.742	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	943212	377284.8	-0.756	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1892096	378419.2	-0.458	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	1909513	381902.6	0.459	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	1905140	381028	0.229	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	2846489	379531.9	-0.165	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	2869201	382560.1	0.632	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	2868674	382489.9	0.613	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	3796762	379676.2	-0.127	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	3802364	380236.4	0.020	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	3788300	378830	-0.350	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

7 Methacrolein



Expected retention time: 5.582 minutes
Search window: 0.5 minutes
No retention time reference component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

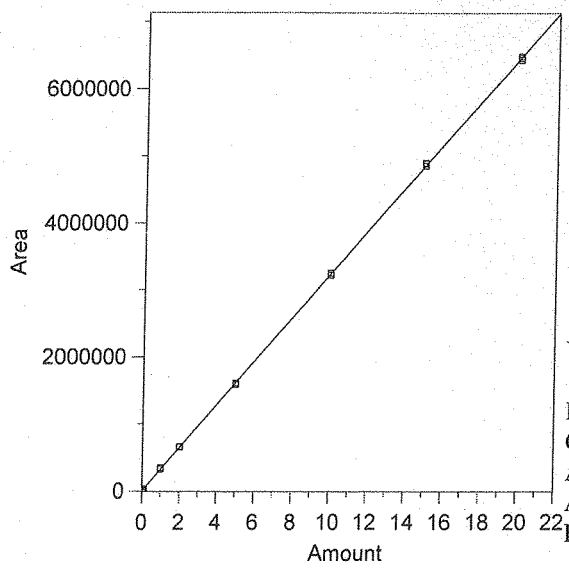
Single peak quantification by area

Y = 402103.5 X + 0

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9999555
Average error: 1.593%
Average CF: 405803.3
RSD: 2.245%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2046.606	409321.2	1.795	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1941.76	388352	-3.420	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2152.434	430486.8	7.059	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	10133.4	405336	0.804	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	10129.37	405174.8	0.764	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	10215.62	408624.8	1.622	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	20786.57	415731.4	3.389	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	20543.71	410874.2	2.181	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	20057.09	401141.8	-0.239	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	215228.8	430457.6	7.051	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	202696.3	405392.6	0.818	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	205546.4	411092.8	2.236	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	411542.4	411542.4	2.347	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	406241.6	406241.6	1.029	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	405954.8	405954.8	0.958	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	988074.2	395229.7	-1.709	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	985936.9	394374.8	-1.922	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1000575	400230	-0.466	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1996175	399235	-0.713	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	2017778	403555.6	0.361	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	2011258	402251.6	0.037	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	3018119	402415.9	0.078	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	3035201	404693.5	0.644	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	3035088	404678.4	0.640	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	4025485	402548.5	0.111	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	4010411	401041.1	-0.264	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	4007106	400710.6	-0.346	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

8 MEK & Butyraldehyde



Expected retention time:	5.966 minutes
Search window:	0.5 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

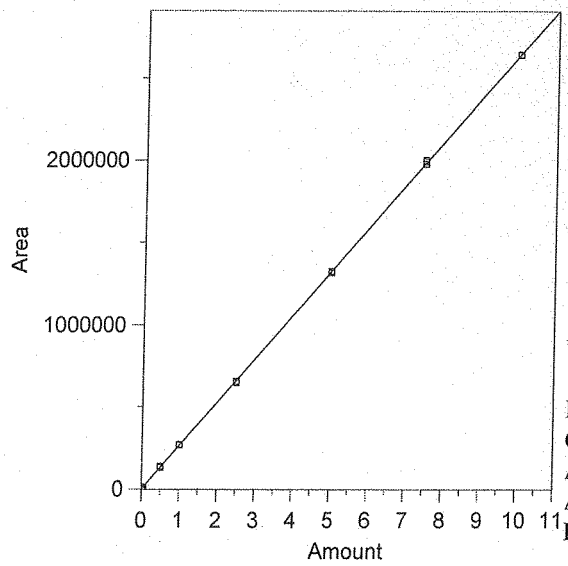
Y = 323725.3 X + 0

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9999455
Average error:	1.583%
Average CF:	327616.8
RSD:	1.902%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.01	3295.589	329558.9	1.802	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.01	3245.783	324578.3	0.264	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.01	3411.926	341192.6	5.396	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.05	16421.55	328431	1.454	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.05	16468.17	329363.4	1.742	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.05	16425.41	328508.2	1.477	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.1	33572.15	335721.5	3.706	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.1	33048.58	330485.8	2.088	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.1	32802.24	328022.4	1.327	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	1	346679.9	346679.9	7.091	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	1	328309.7	328309.7	1.416	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	1	331244	331244	2.323	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	2	664752.6	332376.3	2.672	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	2	656210.7	328105.3	1.353	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	2	654874.3	327437.2	1.147	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	5	1594650	318930	-1.481	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	5	1588729	317745.8	-1.847	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	5	1611625	322325	-0.433	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	10	3222726	322272.6	-0.449	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	10	3250978	325097.8	0.424	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	10	3247845	324784.5	0.327	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	15	4851557	323437.1	-0.089	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	15	4886541	325769.4	0.631	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	15	4893723	326248.2	0.779	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	20	6462091	323104.6	-0.192	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	20	6486439	324321.9	0.184	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	20	6432050	321602.5	-0.656	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

9 Benzaldehyde



Expected retention time:	6.375 minutes
Search window:	0.5 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

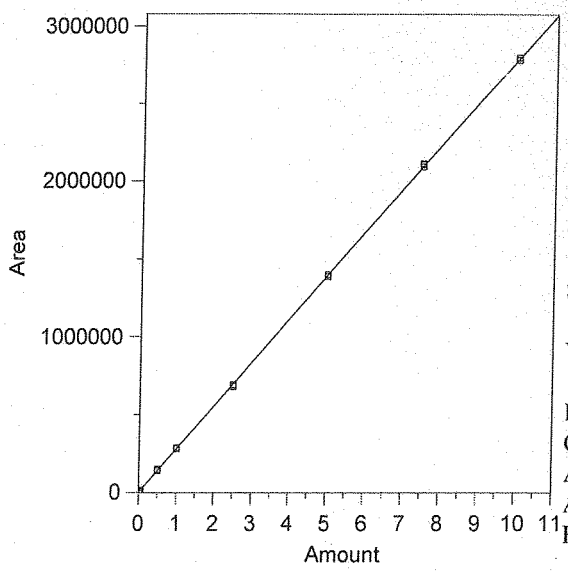
Y = 264532.8 X + 0

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9999563
Average error:	1.328%
Average CF:	264682.8
RSD:	1.937%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1271.628	254325.6	-3.859	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1273.601	254720.2	-3.709	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	1382.946	276589.2	4.558	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	6506.057	260242.3	-1.622	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	6640.884	265635.3	0.417	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	6582.594	263303.8	-0.465	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	13464.09	269281.8	1.795	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	13243.82	264876.4	0.130	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	13138.29	262765.8	-0.668	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	138265.6	276531.2	4.536	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	131281	262562	-0.745	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	134626.8	269253.6	1.785	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	270957.1	270957.1	2.429	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	266032	266032	0.567	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	266541.5	266541.5	0.759	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	647530.3	259012.1	-2.087	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	648400.6	259360.3	-1.955	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	655172.9	262069.2	-0.931	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1315721	263144.2	-0.525	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	1324105	264821	0.109	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	1325810	265162	0.238	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	1978244	263765.9	-0.290	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	2001675	266890	0.891	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	1993485	265798	0.478	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	2645002	264500.2	-0.012	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	2641466	264146.6	-0.146	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	2641496	264149.6	-0.145	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

10 Valeraldehyde



Expected retention time: 8.329 minutes
Search window: 0.5 minutes
No retention time reference component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

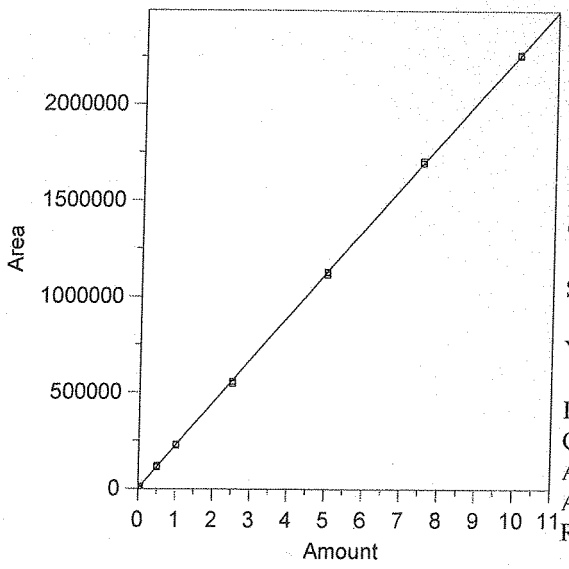
Single peak quantification by area

$Y = 279178.6\ X + 0$

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9999412
Average error: 1.679%
Average CF: 282346.4
RSD: 2.394%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1484.718	296943.6	6.363	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1440.975	288195	3.230	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	1478.778	295755.6	5.938	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	6975.488	279019.5	-0.057	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	6979.106	279164.2	-0.005	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	7027.2	281088	0.684	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	14633.92	292678.4	4.836	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	13928.58	278571.6	-0.217	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	14125.8	282516	1.195	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	149315.6	298631.2	6.968	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	140804	281608	0.870	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	142885.6	285771.2	2.361	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	286175.2	286175.2	2.506	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	280760.4	280760.4	0.567	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	280828.8	280828.8	0.591	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	681125.6	272450.3	-2.410	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	681786.7	272714.7	-2.315	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	691632.1	276652.8	-0.905	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1386088	277217.6	-0.702	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	1398275	279655	0.171	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	1395245	279049	-0.046	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	2091460	278861.3	-0.114	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	2112053	281607.1	0.870	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	2105825	280776.7	0.572	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	2799263	279926.3	0.268	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	2783838	278383.8	-0.285	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	2783513	278351.3	-0.296	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

11 m-Tolualdehyde



Expected retention time:	8.864 minutes
Search window:	0.5 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

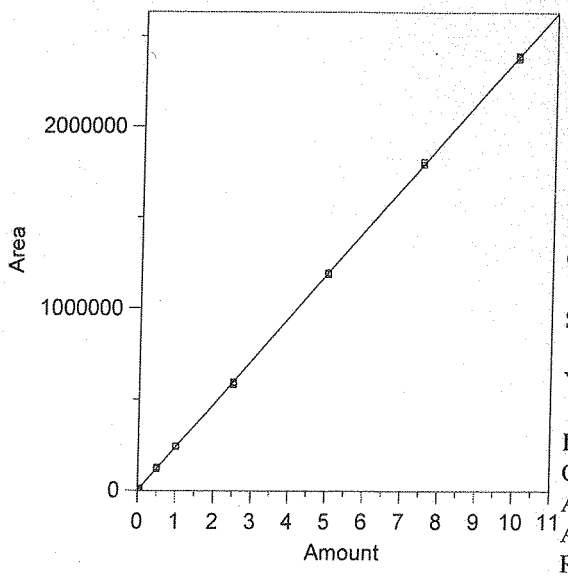
$Y = 225671.2 X + 0$

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9999189
Average error:	1.845%
Average CF:	225055.9
RSD:	2.753%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1205.651	241130.2	6.850	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1133.419	226683.8	0.449	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	1115.328	223065.6	-1.155	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	5301.758	212070.3	-6.027	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	5574.778	222991.1	-1.188	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	5291.765	211670.6	-6.204	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	11500.01	230000.2	1.918	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	10974.64	219492.8	-2.738	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	11585.74	231714.8	2.678	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	118273.4	236546.8	4.819	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	112401.6	224803.2	-0.385	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	114850.5	229701	1.786	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	228083.9	228083.9	1.069	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	224659.6	224659.6	-0.448	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	224437.7	224437.7	-0.547	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	545930.8	218372.3	-3.234	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	545333.1	218133.3	-3.340	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	555975.6	222390.3	-1.454	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1112742	222548.4	-1.384	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	1127437	225487.4	-0.081	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	1124909	224981.8	-0.305	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	1693020	225736	0.029	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	1703770	227169.3	0.664	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	1705210	227361.3	0.749	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	2261498	226149.8	0.212	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	2256941	225694.1	0.010	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	2254343	225434.3	-0.105	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

12 Hexaldehyde



Expected retention time: 11.919 minutes
Search window: 0.5 minutes
No retention time reference component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

Single peak quantification by area

Y = 238926 X + 0

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.999934
Average error: 1.592%
Average CF: 241305.9
RSD: 2.114%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1202.478	240495.6	0.657	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1239.538	247907.6	3.759	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	1271.401	254280.2	6.426	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	5947.313	237892.5	-0.433	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	6068.35	242734	1.594	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	5933.474	237339	-0.664	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	12531.54	250630.8	4.899	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	12251.32	245026.4	2.553	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	12152.7	243054	1.728	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	126196	252392	5.636	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	120634.2	241268.4	0.980	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	121148.8	242297.6	1.411	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	242571.7	242571.7	1.526	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	240813.4	240813.4	0.790	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	241116.1	241116.1	0.917	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	587005.4	234802.2	-1.726	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	579802.9	231921.2	-2.932	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	594270.9	237708.3	-0.510	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1188236	237647.2	-0.535	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	1187571	237514.2	-0.591	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	1196602	239320.4	0.165	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	1792229	238963.9	0.016	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	1807473	240996.4	0.867	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	1806138	240818.4	0.792	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	2394549	239454.9	0.221	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	2387175	238717.5	-0.087	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	2375749	237574.9	-0.565	C:\Chromeperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

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Entry #	Raw File Name	Method File Name	Sample Name	Vial #	DF
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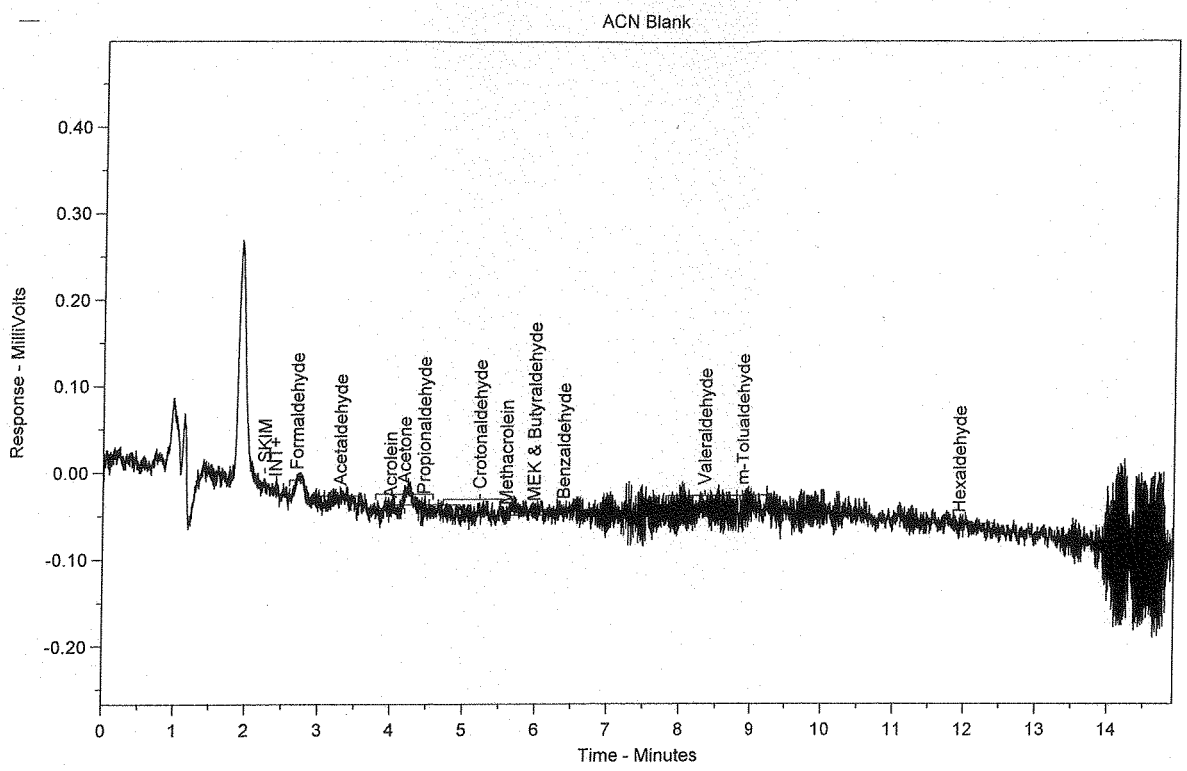
2	061113.0002.raw	061113 TO-11A.MET	STD 1-1 (.005ug/ml [PS061113-01)x2000]	2	1
3	061113.0003.raw	061113 TO-11A.MET	STD 1-2 (.005ug/ml [PS061113-01)x2000]	2	1
4	061113.0004.raw	061113 TO-11A.MET	STD 1-3 (.005ug/ml [PS061113-01)x2000]	2	1
5	061113.0005.raw	061113 TO-11A.MET	STD 2-1 (.025ug/ml [PS061113-01)x400]	3	1
6	061113.0006.raw	061113 TO-11A.MET	STD 2-2 (.025ug/ml [PS061113-01)x400]	3	1
7	061113.0007.raw	061113 TO-11A.MET	STD 2-3 (.025ug/ml [PS061113-01)x400]	3	1
8	061113.0008.raw	061113 TO-11A.MET	STD 3-1 (.050ug/ml [PS061113-01)x200]	4	1
9	061113.0009.raw	061113 TO-11A.MET	STD 3-2 (.050ug/ml [PS061113-01)x200]	4	1
10	061113.0010.raw	061113 TO-11A.MET	STD 3-3 (.050ug/ml [PS061113-01)x200]	4	1
11	061113.0011.raw	061113 TO-11A.MET	STD 4-1 (.5ug/ml [PS061113-01)x20]	5	1
12	061113.0012.raw	061113 TO-11A.MET	STD 4-2 (.5ug/ml [PS061113-01)x20]	5	1
13	061113.0013.raw	061113 TO-11A.MET	STD 4-3 (.5ug/ml [PS061113-01)x20]	5	1
14	061113.0014.raw	061113 TO-11A.MET	STD 5-1 (1.0ug/ml [PS061113-01)x10]	6	1
15	061113.0015.raw	061113 TO-11A.MET	STD 5-2 (1.0ug/ml [PS061113-01)x10]	6	1
16	061113.0016.raw	061113 TO-11A.MET	STD 5-3 (1.0ug/ml [PS061113-01)x10]	6	1
17	061113.0017.raw	061113 TO-11A.MET	STD 6-1 (2.5ug/ml [PS061113-01)x4]	7	1
18	061113.0018.raw	061113 TO-11A.MET	STD 6-2 (2.5ug/ml [PS061113-01)x4]	7	1
19	061113.0019.raw	061113 TO-11A.MET	STD 6-3 (2.5ug/ml [PS061113-01)x4]	7	1
20	061113.0020.raw	061113 TO-11A.MET	STD 7-1 (5.0ug/ml [PS061113-01)x2]	8	1
21	061113.0021.raw	061113 TO-11A.MET	STD 7-2 (5.0ug/ml [PS061113-01)x2]	8	1
22	061113.0022.raw	061113 TO-11A.MET	STD 7-3 (5.0ug/ml [PS061113-01)x2]	8	1
23	061113.0023.raw	061113 TO-11A.MET	STD 8-1 (7.5ug/ml [PS061113-01)x1.3]	9	1
24	061113.0024.raw	061113 TO-11A.MET	STD 8-2 (7.5ug/ml [PS061113-01)x1.3]	9	1
25	061113.0025.raw	061113 TO-11A.MET	STD 8-3 (7.5ug/ml [PS061113-01)x1.3]	9	1
26	061113.0026.raw	061113 TO-11A.MET	STD 9-1 (10.0ug/ml [PS061113-01)x1]	10	1
27	061113.0027.raw	061113 TO-11A.MET	STD 9-2 (10.0ug/ml [PS061113-01)x1]	10	1
28	061113.0028.raw	061113 TO-11A.MET	STD 9-3 (10.0ug/ml [PS061113-01)x1]	10	1
29	061113.0029.raw	061113 TO-11A.MET	ACN Blank	11	1
30	061113.0030.raw	061113 TO-11A.MET	CCV (2.5ug/ml [PS061113-01]x4]	12	1
31	061113.0031.raw	061113 TO-11A.MET	CCV (2.5ug/ml [PS061113-01]x4]	13	1
32	061113.0032.raw	061113 TO-11A.MET	ACN Blank	14	1
33	061113.0033.raw	061113 TO-11A.MET	STD 2-1 (.025ug/ml [PS061113-01)x400]	15	1

Raw Data



Sample Name = **ACN Blank** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0001.RAW**
Date Taken (end) = 8/22/2013 6:01:22 AM

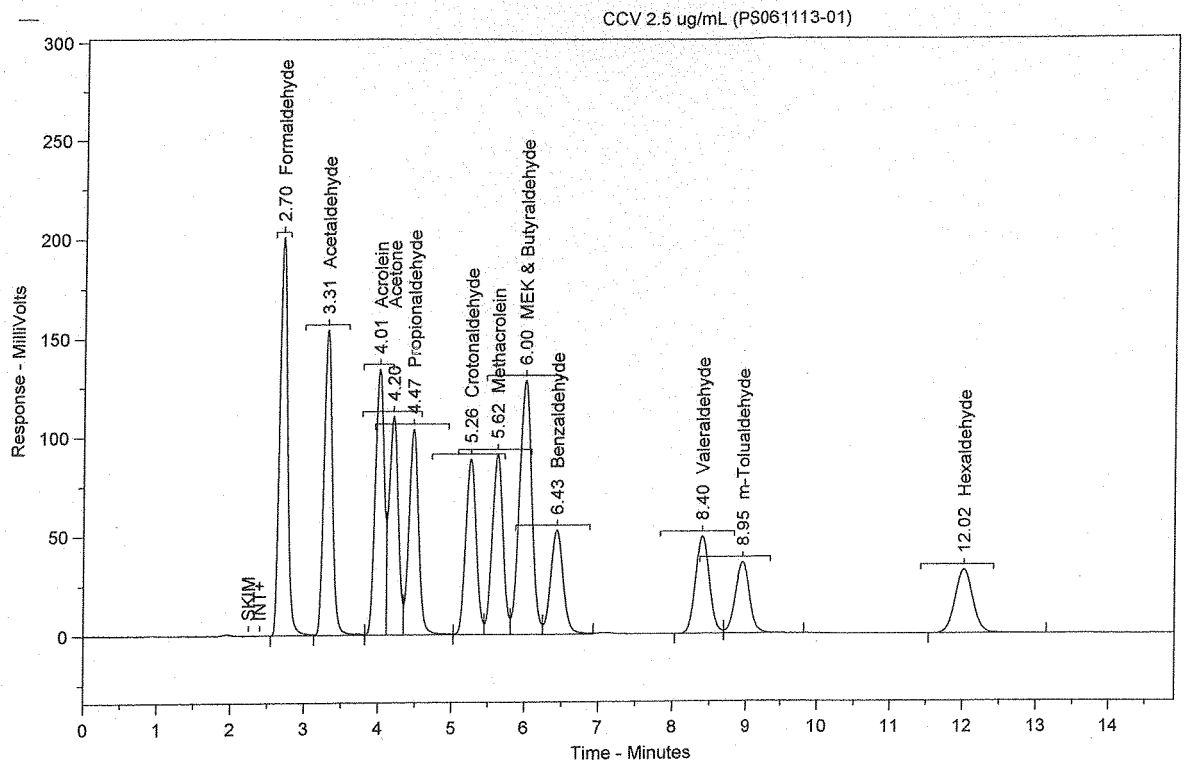
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 1
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width

Total Area = 0 Total Height = 0 Total Amount = 0



Sample Name = **CCV 2.5 ug/mL (PS061113-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0002.RAW**
Date Taken (end) = 8/22/2013 6:18:01 AM

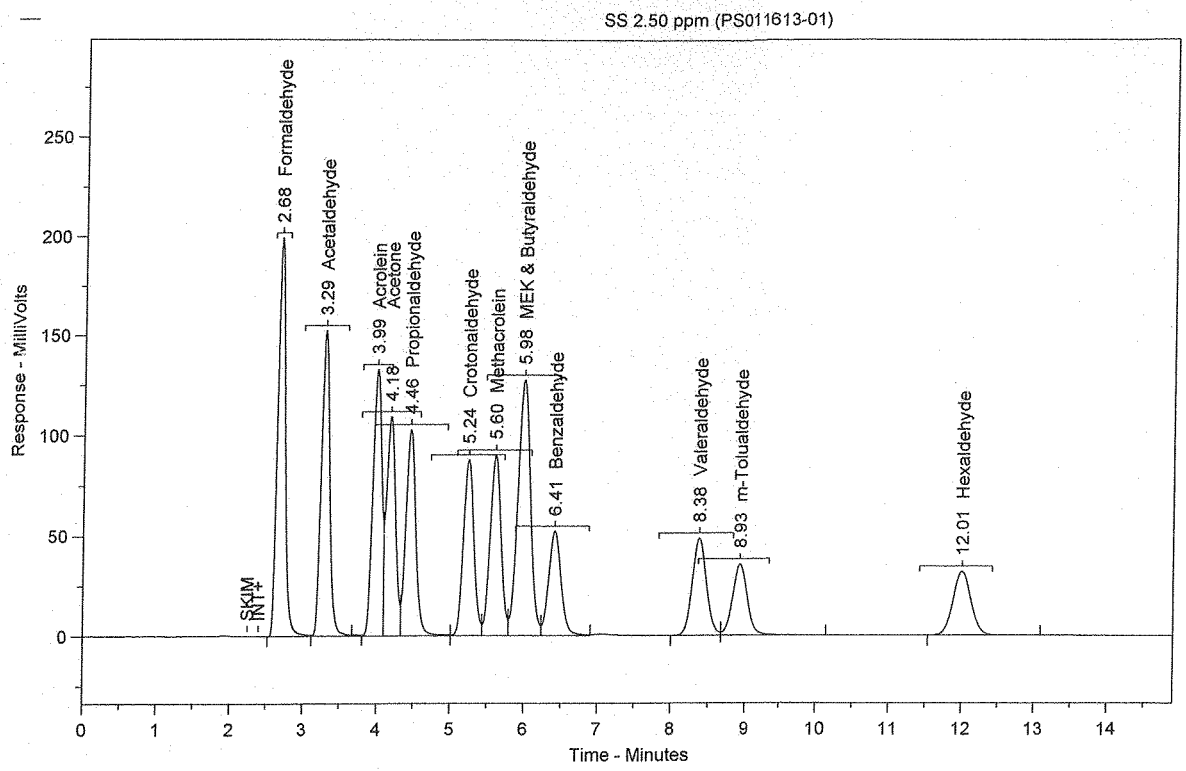
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 2
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.70	Formaldehyde	2.3004	7.615	1480263	12.957	SBB	0.11
2	3.31	Acetaldehyde	2.3330	7.723	1232801	10.791	TBV	0.12
3	4.01	Acrolein	2.3062	7.634	1104955	9.672	TVV	0.14
4	4.20	Acetone	2.3295	7.711	970037	8.491	TVV	0.14
5	4.47	Propionaldehyde	2.3517	7.785	972425	8.512	TVV	0.14
6	5.26	Crotonaldehyde	2.3119	7.653	878893	7.693	TVV	0.15
7	5.62	Methacrolein	2.3249	7.696	934866	8.183	TVV	0.15
8	6.00	MEK & Butyraldehyde	4.6486	15.388	1504857	13.172	TVV	0.18
9	6.43	Benzaldehyde	2.3478	7.772	621062	5.436	TVB	0.18
10	8.40	Valeraldehyde	2.3166	7.669	646738	5.661	BV	0.20
11	8.95	m-Tolualdehyde	2.3022	7.621	519535	4.548	VB	0.22
12	12.02	Hexaldehyde	2.3356	7.732	558044	4.885	BB	0.27

Total Area = 1.142447E+07 Total Height = 1181462 Total Amount = 30.20844



Sample Name = **SS 2.50 ppm (PS011613-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0003.RAW**
Date Taken (end) = 8/22/2013 6:34:40 AM

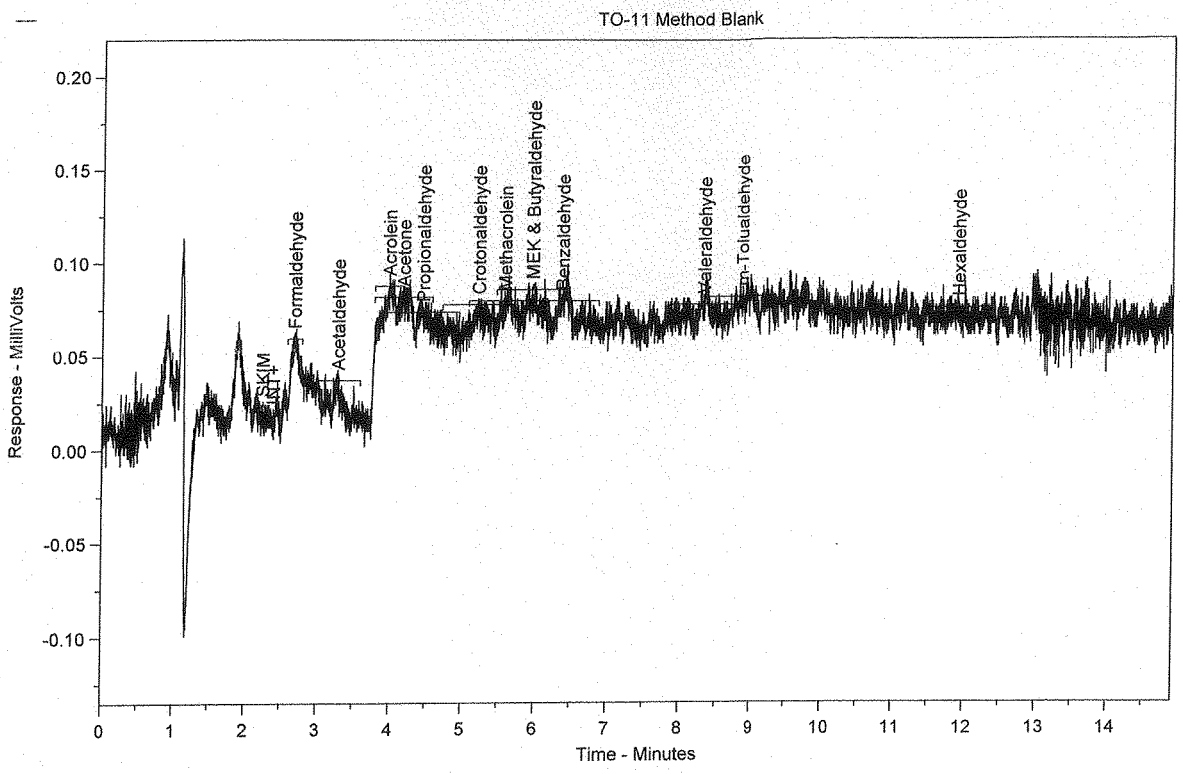
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 3
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	2.2884	7.623	1472508	12.977	SBB	0.11
2	3.29	Acetaldehyde	2.3009	7.665	1215813	10.715	TBV	0.12
3	3.99	Acrolein	2.2936	7.640	1098935	9.685	TVV	0.14
4	4.18	Acetone	2.3054	7.680	960011	8.461	TVV	0.14
5	4.46	Propionaldehyde	2.3392	7.792	967227	8.524	TVV	0.14
6	5.24	Crotonaldehyde	2.2930	7.638	871716	7.682	TVV	0.15
7	5.60	Methacrolein	2.3029	7.671	926013	8.161	TVV	0.15
8	5.98	MEK & Butyraldehyde	4.6303	15.424	1498945	13.210	TVV	0.18
9	6.41	Benzaldehyde	2.3339	7.775	617392	5.441	TVB	0.18
10	8.38	Valeraldehyde	2.2998	7.661	642068	5.659	BV	0.20
11	8.93	m-Tolualdehyde	2.3048	7.678	520133	4.584	VB	0.22
12	12.01	Hexaldehyde	2.3274	7.753	556080	4.901	BB	0.27

Total Area = 1.134684E+07 Total Height = 1170301 Total Amount = 30.0197



Sample Name = **TO-11 Method Blank** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0004.RAW**
Date Taken (end) = 8/22/2013 6:51:20 AM

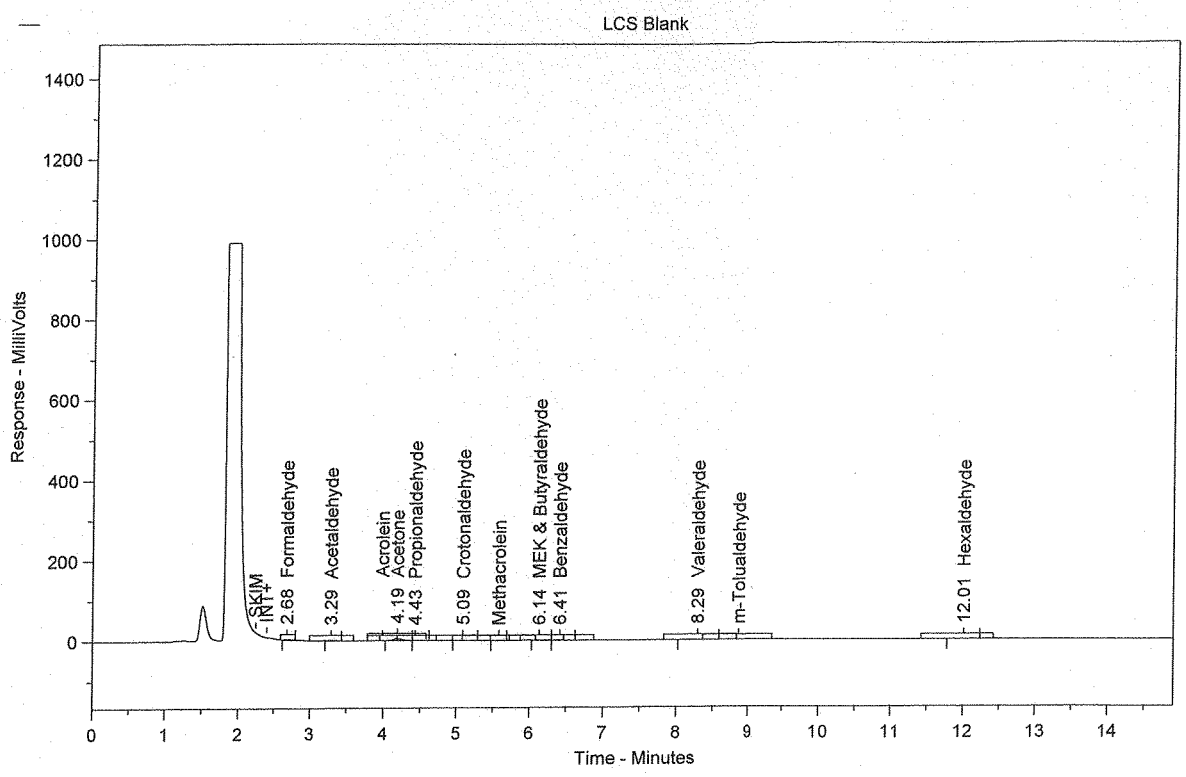
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 4
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width

Total Area = 0 Total Height = 0 Total Amount = 0



Sample Name = **LCS Blank**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0005.RAW**
Date Taken (end) = 8/22/2013 7:07:59 AM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

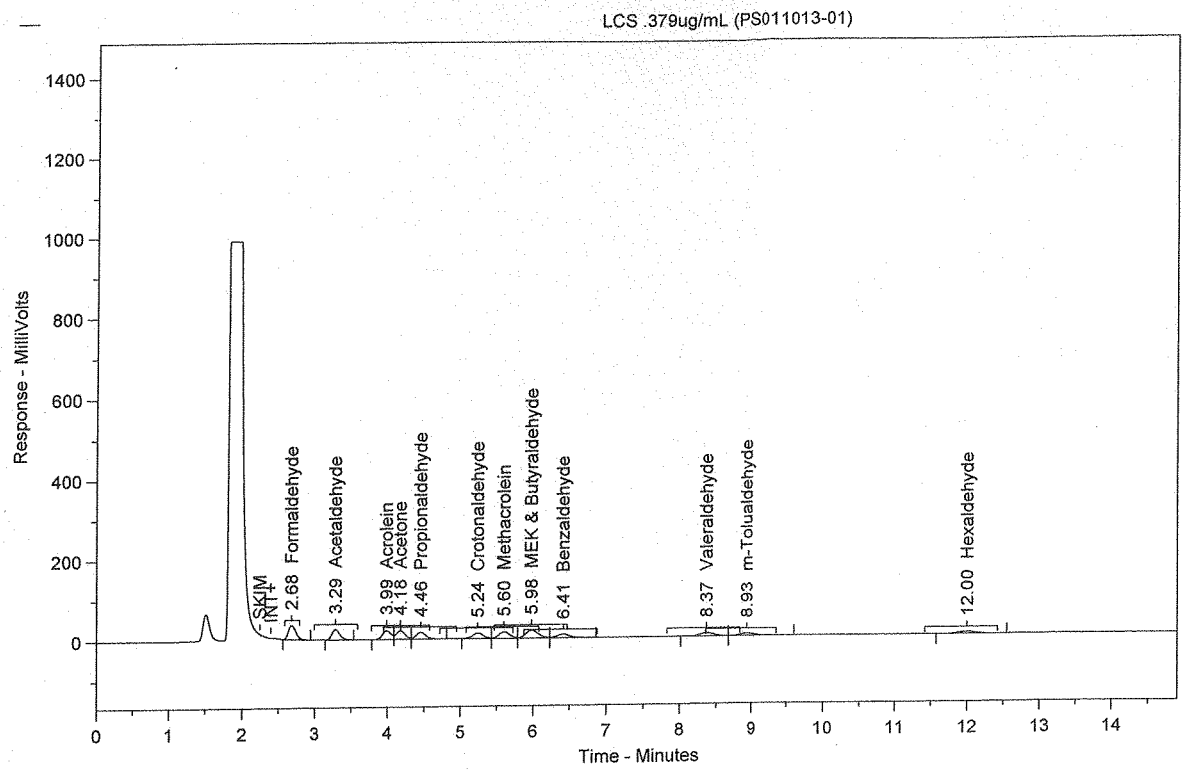
Vial Number = 5
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.0095	4.615	6124	7.858	BB	0.13
2	3.29	Acetaldehyde	0.0107	5.204	5671	7.277	BB	0.15
3	4.19	Acetone	0.0881	42.731	36692	47.083	BV	0.13
4	4.43	Propionaldehyde	0.0040	1.953	1665	2.137	VB	0.14
5	5.09	Crotonaldehyde	0.0083	4.029	3159	4.053	BB	0.24
7	6.14	MEK & Butyraldehyde	0.0295	14.319	9558	12.265	BV	0.19
8	6.41	Benzaldehyde	0.0173	8.400	4582	5.879	VB	0.20
9	8.29	Valeraldehyde	0.0309	14.977	8622	11.064	BB	0.22
10	12.01	Hexaldehyde	0.0078	3.771	1858	2.384	BB	0.28

Total Area = 77930.99

Total Height = 8448.571

Total Amount = 0.2062064



Sample Name = **LCS .379ug/mL (PS011013-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0006.RAW**
Date Taken (end) = 8/22/2013 7:24:37 AM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

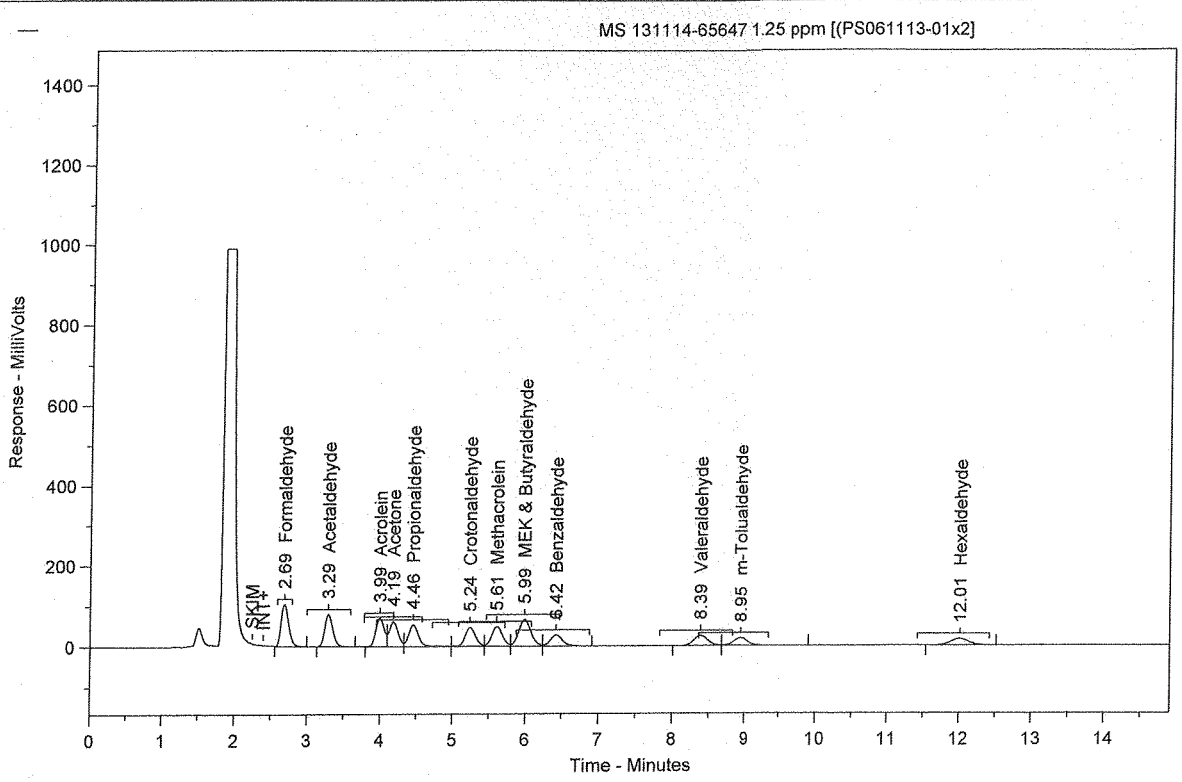
Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 6
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.3876	7.605	249418	12.914	BB	0.11
2	3.29	Acetaldehyde	0.3771	7.399	199273	10.317	BB	0.12
3	3.99	Acrolein	0.3829	7.512	183450	9.498	BV	0.14
4	4.18	Acetone	0.4533	8.894	188757	9.773	VV	0.13
5	4.46	Propionaldehyde	0.3966	7.782	163990	8.491	VB	0.14
6	5.24	Crotonaldehyde	0.3788	7.432	143996	7.455	BV	0.15
7	5.60	Methacrolein	0.4184	8.209	168231	8.710	VV	0.15
8	5.98	MEK & Butyraldehyde	0.7472	14.660	241883	12.524	VV	0.18
9	6.41	Benzaldehyde	0.3852	7.558	101898	5.276	VB	0.18
10	8.37	Valeraldehyde	0.4017	7.881	112139	5.806	BV	0.21
11	8.93	m-Tolualdehyde	0.3832	7.519	86481	4.478	VB	0.22
12	12.00	Hexaldehyde	0.3847	7.548	91910	4.759	BB	0.27

Total Area = 1931426 Total Height = 201370.8 Total Amount = 5.096613

C 8/22/13



Sample Name = **MS 131114-65647 1.25 ppm [(PS061113-01x2]** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0007.RAW**
Date Taken (end) = 8/22/2013 7:41:16 AM

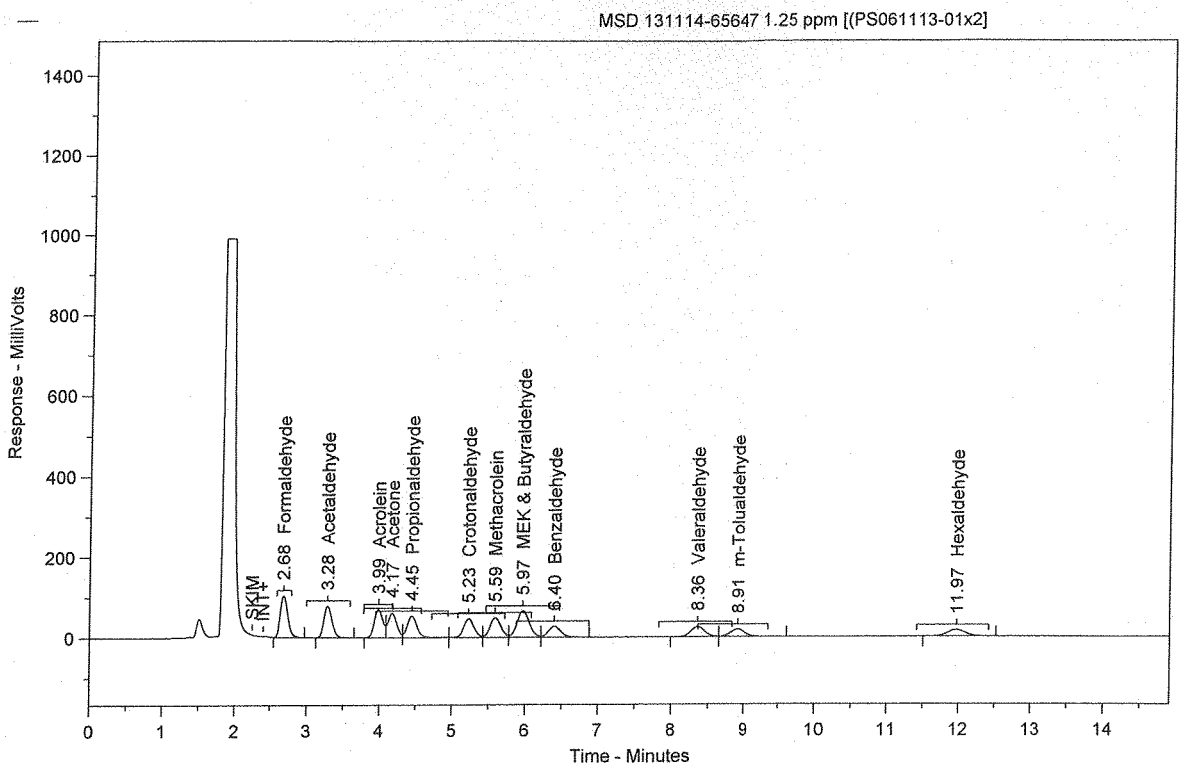
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 7
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	1.1506	7.426	740375	12.655	BB	0.11
2	3.29	Acetaldehyde	1.1549	7.453	610267	10.431	BB	0.12
3	3.99	Acrolein	1.1845	7.644	567529	9.701	BV	0.14
4	4.19	Acetone	1.2534	8.089	521928	8.921	VV	0.13
5	4.46	Propionaldehyde	1.1926	7.696	493118	8.429	VV	0.14
6	5.24	Crotonaldehyde	1.1958	7.717	454592	7.770	VV	0.15
7	5.61	Methacrolein	1.2320	7.951	495411	8.468	VV	0.15
8	5.99	MEK & Butyraldehyde	2.3683	15.284	766684	13.105	VV	0.18
9	6.42	Benzaldehyde	1.1951	7.713	316152	5.404	VB	0.18
10	8.39	Valeraldehyde	1.1889	7.673	331916	5.673	BV	0.21
11	8.95	m-Tolualdehyde	1.2075	7.792	272488	4.658	VB	0.22
12	12.01	Hexaldehyde	1.1716	7.561	279916	4.785	BB	0.27

Total Area = 5850375 Total Height = 609053.1 Total Amount = 15.49517



Sample Name = **MSD 131114-65647 1.25 ppm [(PS061113-01x2]** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0008.RAW**
Date Taken (end) = 8/22/2013 7:57:55 AM

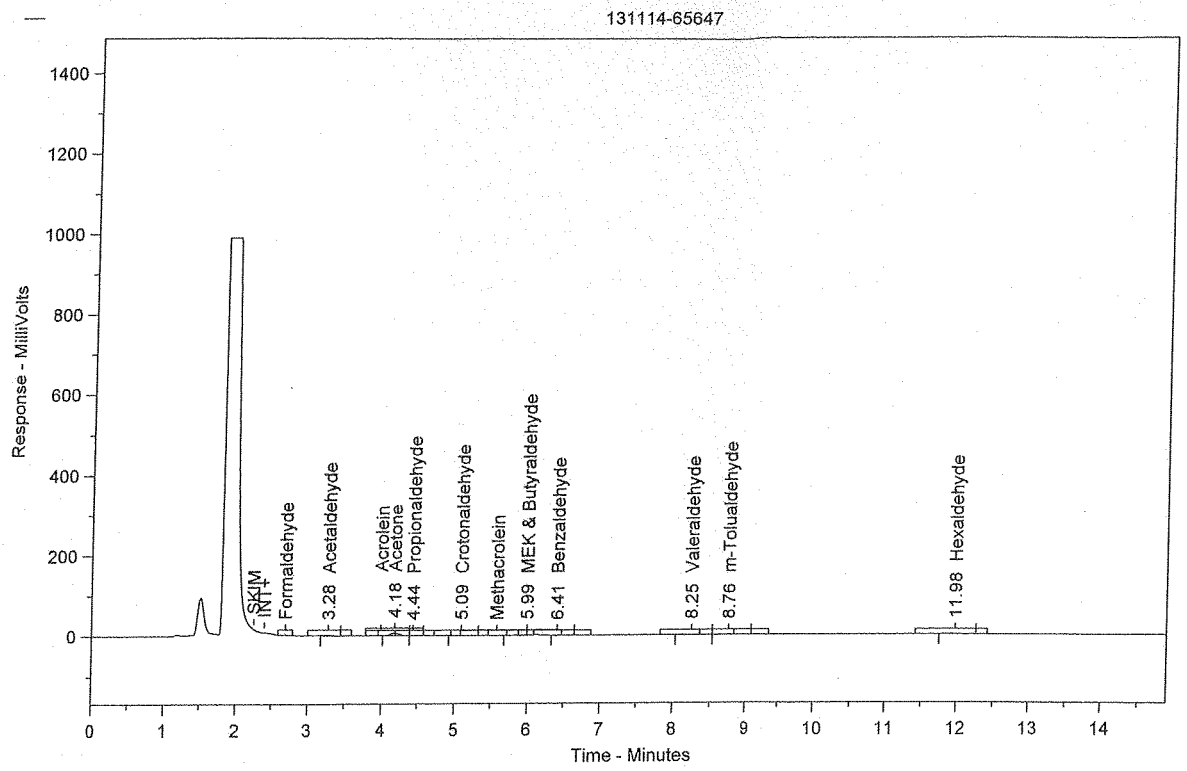
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 8
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	1.1470	7.424	738086	12.651	BB	0.11
2	3.28	Acetaldehyde	1.1536	7.467	609579	10.448	BB	0.12
3	3.99	Acrolein	1.1812	7.645	565945	9.700	BV	0.14
4	4.17	Acetone	1.2524	8.106	521499	8.939	VV	0.13
5	4.45	Propionaldehyde	1.1889	7.695	491596	8.426	VV	0.14
6	5.23	Crotonaldehyde	1.1923	7.717	453273	7.769	VV	0.15
7	5.59	Methacrolein	1.2302	7.962	494675	8.479	VV	0.15
8	5.97	MEK & Butyraldehyde	2.3541	15.237	762093	13.062	VV	0.18
9	6.40	Benzaldehyde	1.1955	7.738	316260	5.421	VB	0.18
10	8.36	Valeraldehyde	1.1851	7.670	330858	5.671	BV	0.20
11	8.91	m-Tolualdehyde	1.1953	7.736	269741	4.623	VB	0.22
12	11.97	Hexaldehyde	1.1746	7.603	280647	4.810	BB	0.27

Total Area = 5834252 Total Height = 608773.3 Total Amount = 15.45032



Sample Name = **131114-65647**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0009.RAW**
Date Taken (end) = 8/22/2013 8:14:38 AM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

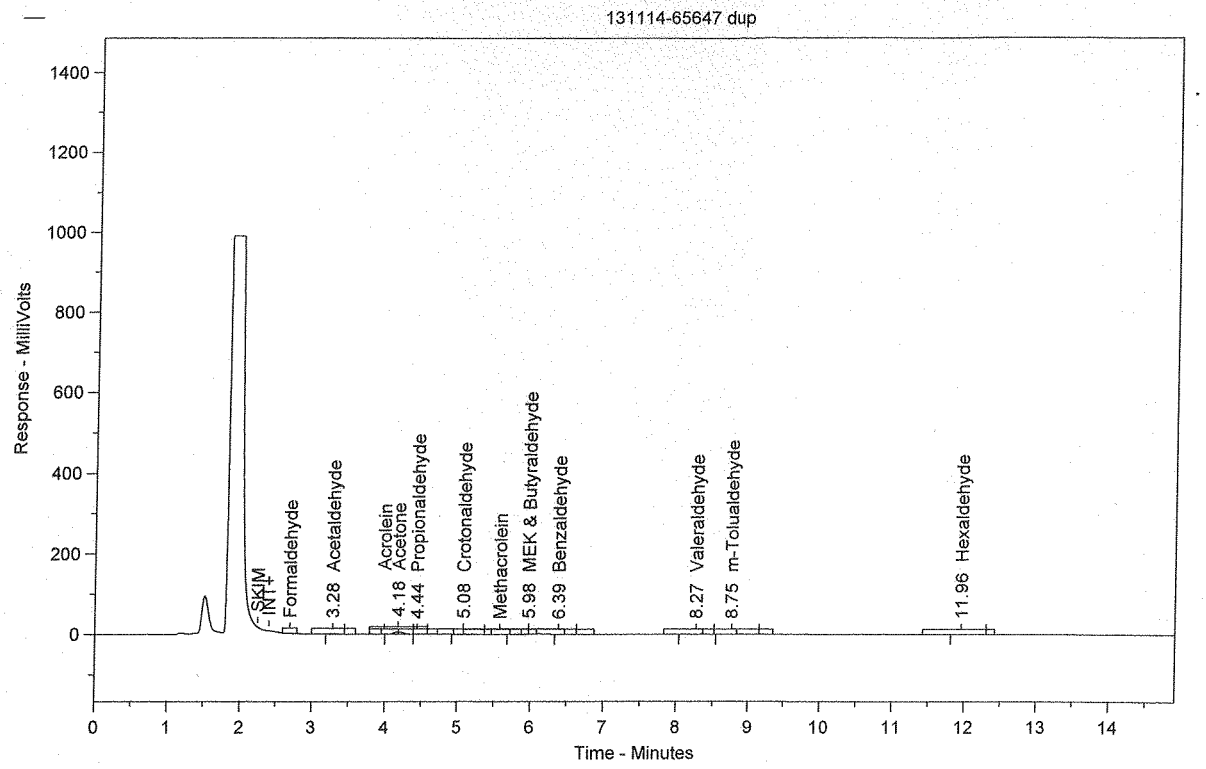
Vial Number = 9
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	3.28	Acetaldehyde	0.0142	5.743	7481	8.254	BB	0.15
2	4.18	Acetone	0.1262	51.212	52569	57.998	BV	0.13
3	4.44	Propionaldehyde	0.0082	3.318	3382	3.732	VB	0.11
4	5.09	Crotonaldehyde	0.0135	5.478	5133	5.663	BB	0.27
5	5.99	MEK & Butyraldehyde	0.0157	6.386	5096	5.622	BB	0.12
6	6.41	Benzaldehyde	0.0110	4.448	2900	3.200	BB	0.17
7	8.25	Valeraldehyde	0.0170	6.896	4746	5.236	BV	0.23
8	8.76	m-Tolualdehyde	0.0300	12.177	6774	7.474	VB	0.24
9	11.98	Hexaldehyde	0.0107	4.343	2558	2.822	BB	0.29

Total Area = 90639.71

Total Height = 9737.478

Total Amount = 0.2465096



Sample Name = **131114-65647 dup** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0010.RAW**
Date Taken (end) = 8/22/2013 8:31:17 AM

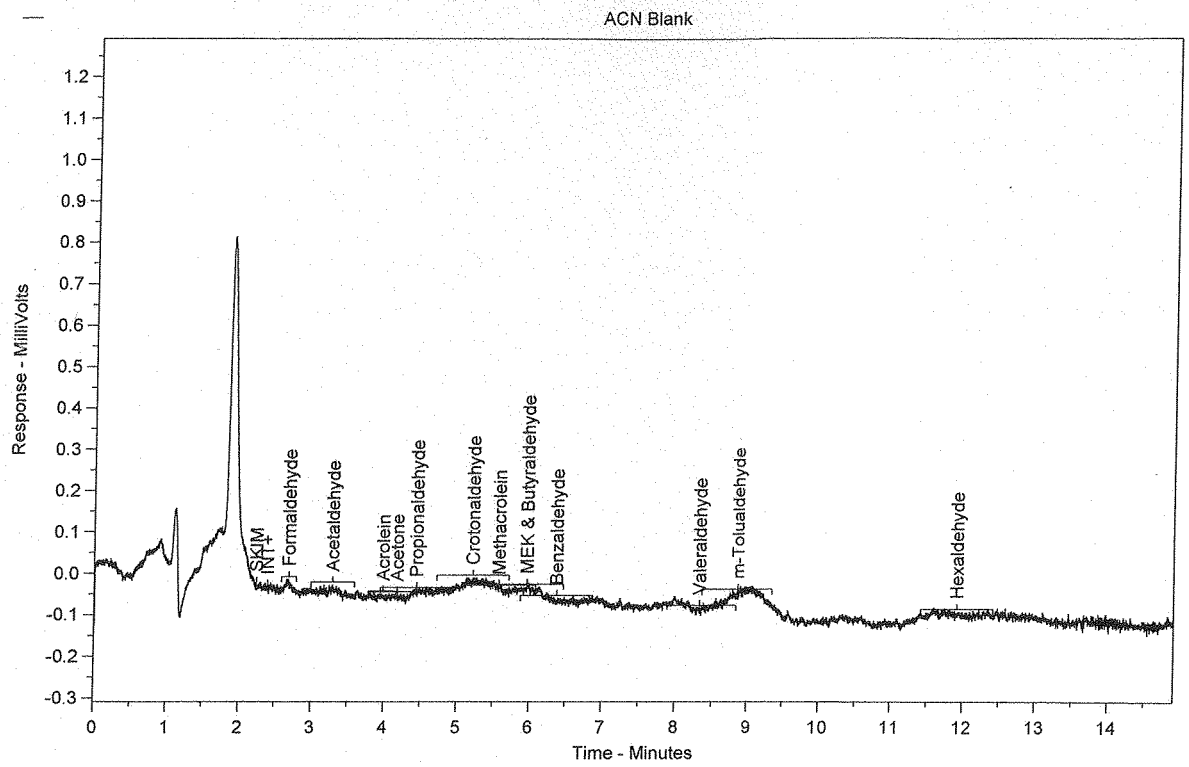
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 10
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	3.28	Acetaldehyde	0.0137	5.433	7259	7.817	BB	0.16
2	4.18	Acetone	0.1281	50.673	53357	57.457	BV	0.13
3	4.44	Propionaldehyde	0.0089	3.505	3665	3.947	VB	0.12
4	5.08	Crotonaldehyde	0.0135	5.322	5116	5.509	BB	0.28
5	5.98	MEK & Butyraldehyde	0.0197	7.797	6382	6.872	BB	0.17
6	6.39	Benzaldehyde	0.0106	4.197	2807	3.023	BB	0.16
7	8.27	Valeraldehyde	0.0189	7.462	5268	5.673	BV	0.23
8	8.75	m-Tolualdehyde	0.0317	12.548	7160	7.711	VB	0.25
9	11.96	Hexaldehyde	0.0077	3.064	1851	1.993	BB	0.29

Total Area = 92865.34 Total Height = 9758.865 Total Amount = 0.2528643



Sample Name = **ACN Blank** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0012.RAW**
Date Taken (end) = 8/22/2013 9:04:35 AM

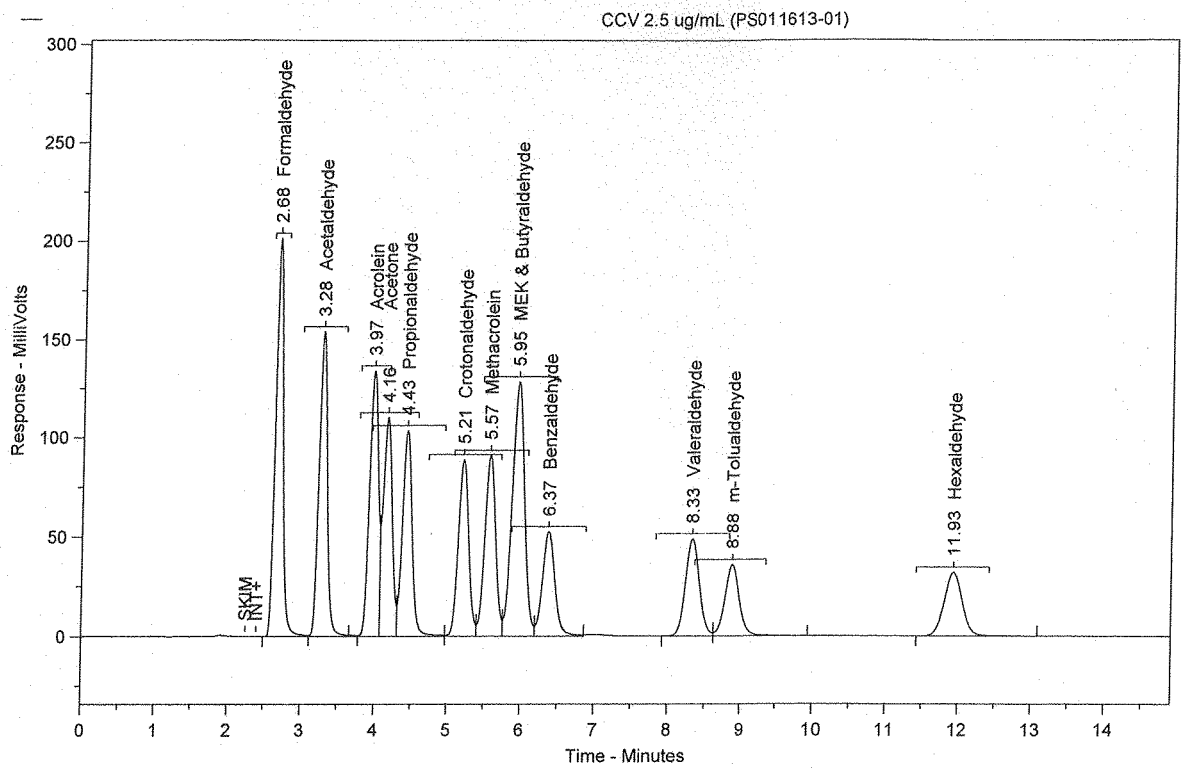
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 12
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width

Total Area = 0 Total Height = 0 Total Amount = 0



Sample Name = **CCV 2.5 ug/mL (PS011613-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0013.RAW**
Date Taken (end) = 8/22/2013 9:21:14 AM

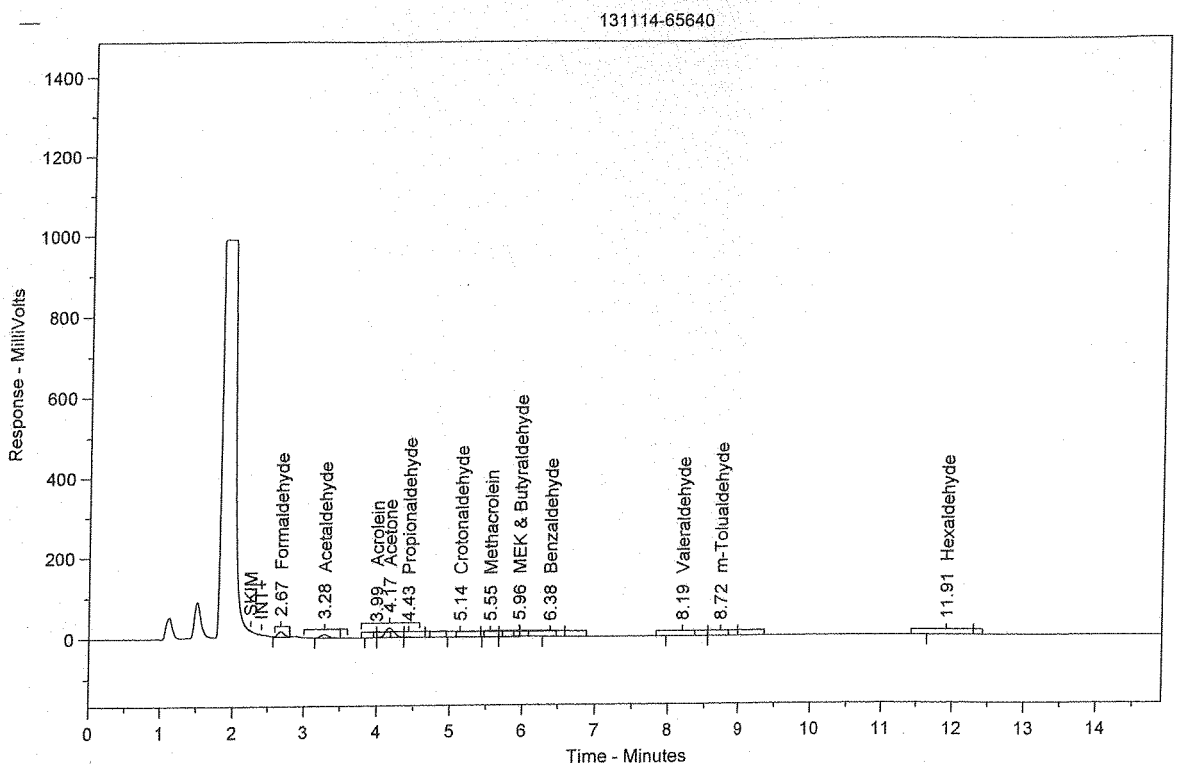
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 13
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	2.2762	7.623	1464689	12.977	SBB	0.11
2	3.28	Acetaldehyde	2.2873	7.660	1208632	10.708	TBV	0.12
3	3.97	Acrolein	2.2809	7.639	1092832	9.682	TVV	0.14
4	4.16	Acetone	2.2915	7.675	954235	8.454	TVV	0.13
5	4.43	Propionaldehyde	2.3170	7.760	958077	8.489	TVV	0.14
6	5.21	Crotonaldehyde	2.2904	7.671	870730	7.715	TVV	0.15
7	5.57	Methacrolein	2.3036	7.715	926279	8.207	TVV	0.15
8	5.95	MEK & Butyraldehyde	4.5994	15.404	1488945	13.192	TVV	0.17
9	6.37	Benzaldehyde	2.3232	7.781	614552	5.445	TVB	0.18
10	8.33	Valeraldehyde	2.2862	7.657	638269	5.655	BV	0.20
11	8.88	m-Tolualdehyde	2.2828	7.645	515155	4.564	VB	0.22
12	11.93	Hexaldehyde	2.3201	7.770	554331	4.911	BB	0.27

Total Area = 1.128673E+07 Total Height = 1179057 Total Amount = 29.85867



Sample Name = **131114-65640**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0014.RAW**
Date Taken (end) = 8/22/2013 9:37:53 AM

Method File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0014.BND
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0014.BND
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

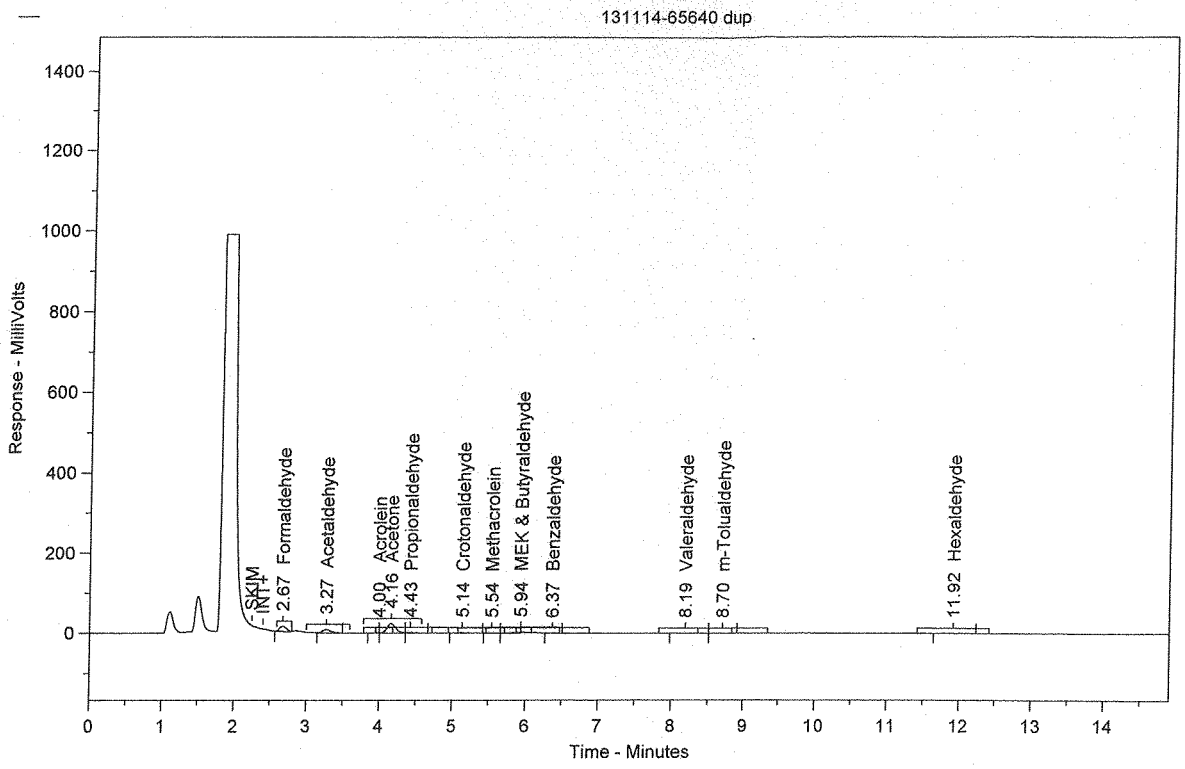
Vial Number = 14
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.67	Formaldehyde	0.1364	14.063	87791	20.750	BB	0.10
2	3.28	Acetaldehyde	0.1132	11.670	59826	14.140	BB	0.12
3	3.99	Acrolein	0.0042	0.432	2010	0.475	BV	0.08
4	4.17	Acetone	0.4757	49.037	198105	46.822	VV	0.13
5	4.43	Propionaldehyde	0.0342	3.530	14159	3.347	VB	0.14
6	5.14	Crotonaldehyde	0.0394	4.063	14985	3.542	BB	0.20
7	5.55	Methacrolein	0.0058	0.597	2330	0.551	BV	0.14
8	5.96	MEK & Butyraldehyde	0.0438	4.517	14186	3.353	VB	0.11
9	6.38	Benzaldehyde	0.0167	1.725	4428	1.047	BB	0.19
10	8.19	Valeraldehyde	0.0424	4.370	11837	2.798	BV	0.27
11	8.72	m-Tolualdehyde	0.0342	3.527	7722	1.825	VB	0.29
12	11.91	Hexaldehyde	0.0239	2.468	5720	1.352	BB	0.30

Total Area = 423099.3

Total Height = 50735.92

Total Amount = 0.9701592



Sample Name = **131114-65640 dup** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0015.RAW**
Date Taken (end) = 8/22/2013 9:54:32 AM

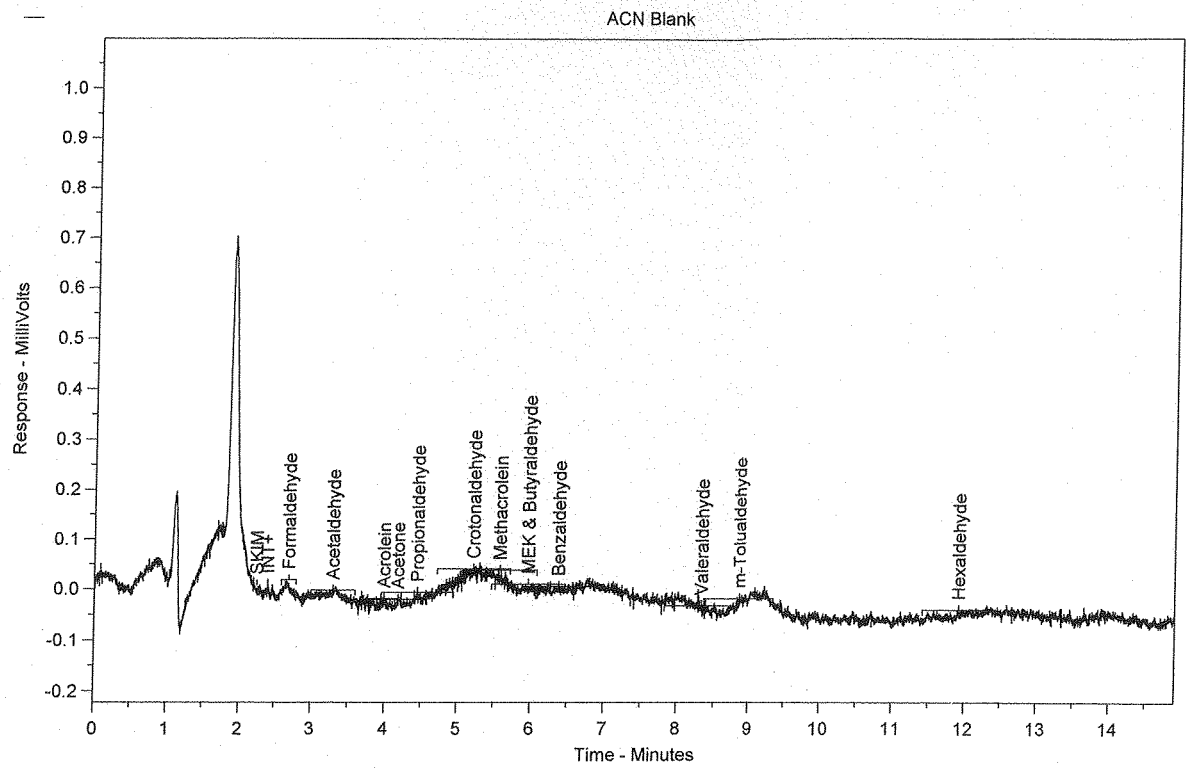
Method File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0015.BND
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0015.BND
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 15
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.67	Formaldehyde	0.1363	14.064	87697	20.737	BB	0.10
2	3.27	Acetaldehyde	0.1140	11.759	60214	14.238	BB	0.12
3	4.00	Acrolein	0.0040	0.417	1938	0.458	BV	0.09
4	4.16	Acetone	0.4766	49.184	198470	46.929	VV	0.13
5	4.43	Propionaldehyde	0.0350	3.614	14480	3.424	VV	0.14
6	5.14	Crotonaldehyde	0.0377	3.888	14324	3.387	VB	0.20
7	5.54	Methacrolein	0.0055	0.566	2204	0.521	BV	0.15
8	5.94	MEK & Butyraldehyde	0.0458	4.729	14836	3.508	VB	0.11
9	6.37	Benzaldehyde	0.0123	1.269	3253	0.769	BB	0.18
10	8.19	Valeraldehyde	0.0410	4.229	11441	2.705	BV	0.27
11	8.70	m-Tolualdehyde	0.0367	3.788	8284	1.959	VB	0.24
12	11.92	Hexaldehyde	0.0242	2.492	5770	1.364	BB	0.32

Total Area = 422911.8 Total Height = 50687.88 Total Amount = 0.969048



Sample Name = **ACN Blank** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0022.RAW**
Date Taken (end) = 8/22/2013 11:51:08 AM

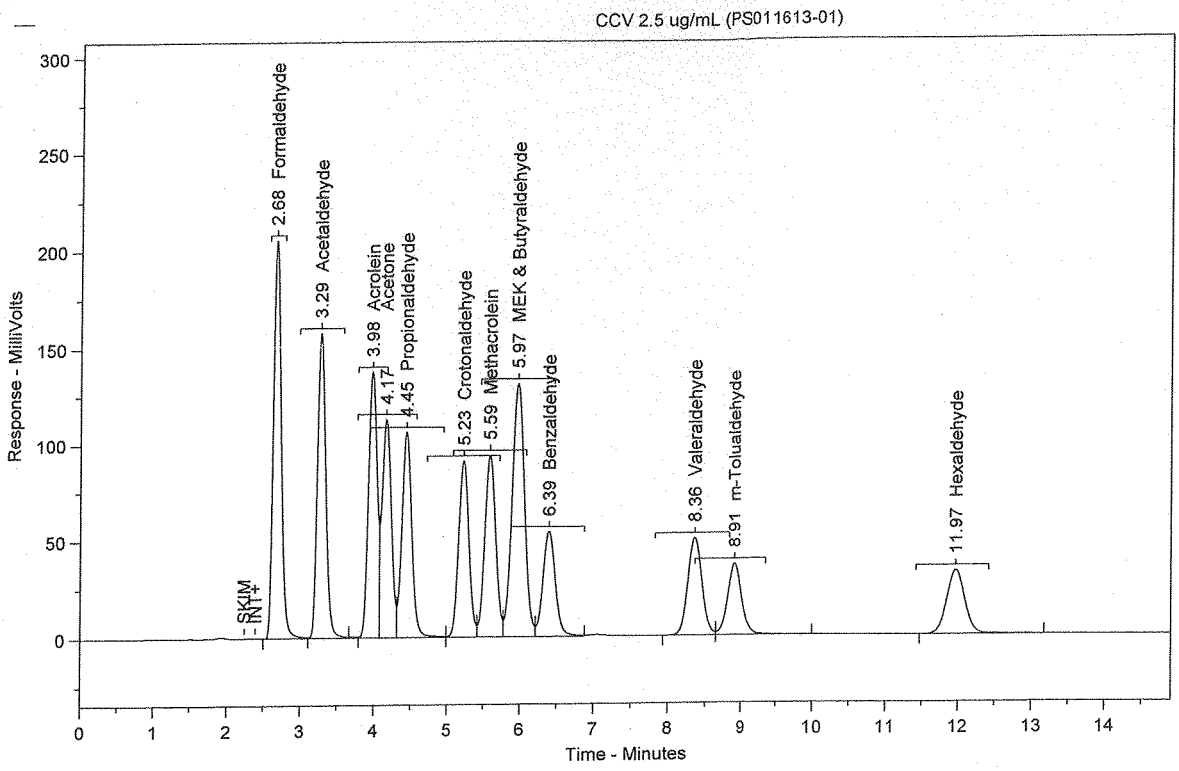
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 22
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width

Total Area = 0 Total Height = 0 Total Amount = 0



Sample Name = **CCV 2.5 ug/mL (PS011613-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0023.RAW**
Date Taken (end) = 8/22/2013 12:07:46 PM

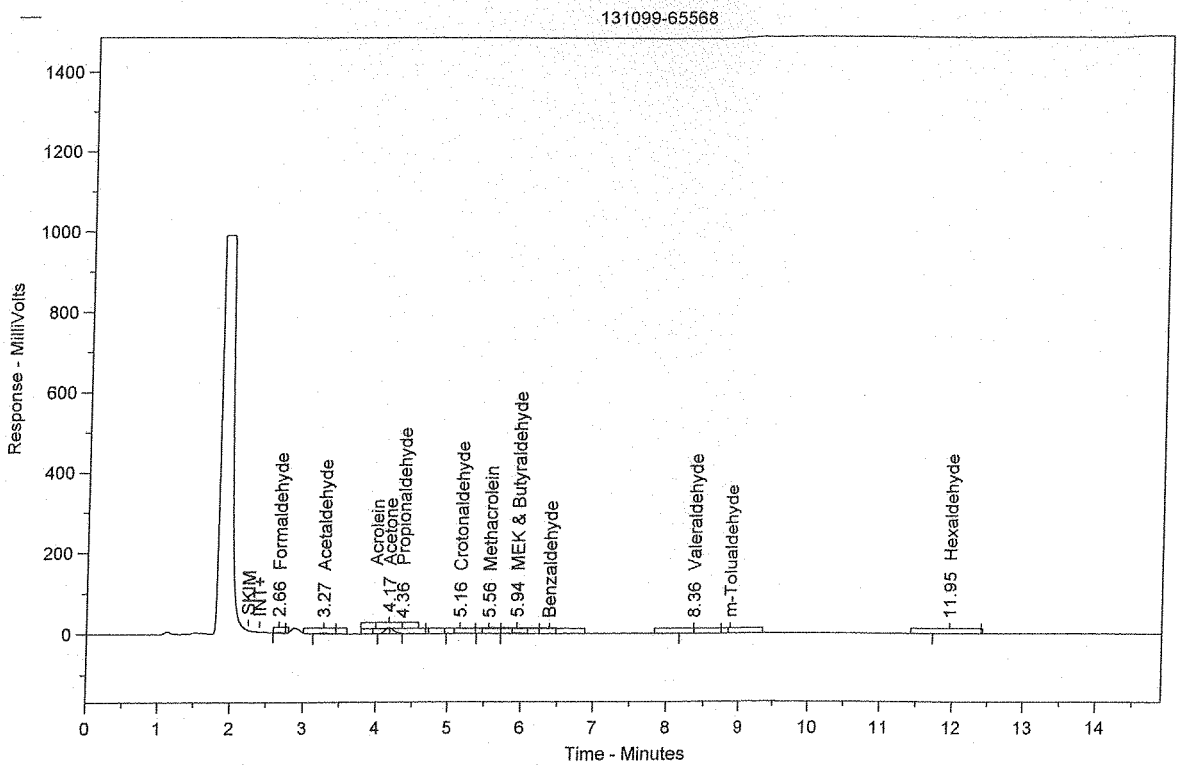
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 23
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	2.3380	7.606	1504441	12.946	SBB	0.11
2	3.29	Acetaldehyde	2.3581	7.671	1246023	10.723	TBV	0.12
3	3.98	Acrolein	2.3486	7.640	1125268	9.684	TVV	0.14
4	4.17	Acetone	2.3713	7.714	987444	8.497	TVV	0.14
5	4.45	Propionaldehyde	2.3844	7.757	985946	8.485	TVV	0.14
6	5.23	Crotonaldehyde	2.3547	7.660	895143	7.703	TVV	0.15
7	5.59	Methacrolein	2.3841	7.756	958649	8.250	TVV	0.15
8	5.97	MEK & Butyraldehyde	4.7196	15.354	1527840	13.148	TVV	0.18
9	6.39	Benzaldehyde	2.3881	7.769	631732	5.436	TVB	0.18
10	8.36	Valeraldehyde	2.3506	7.647	656248	5.647	BV	0.20
11	8.91	m-Tolualdehyde	2.3542	7.659	531276	4.572	VB	0.22
12	11.97	Hexaldehyde	2.3875	7.767	570447	4.909	BB	0.27

Total Area = 1.162046E+07 Total Height = 1206828 Total Amount = 30.73916



Sample Name = **131099-65568** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0024.RAW**
Date Taken (end) = 8/22/2013 12:24:25 PM

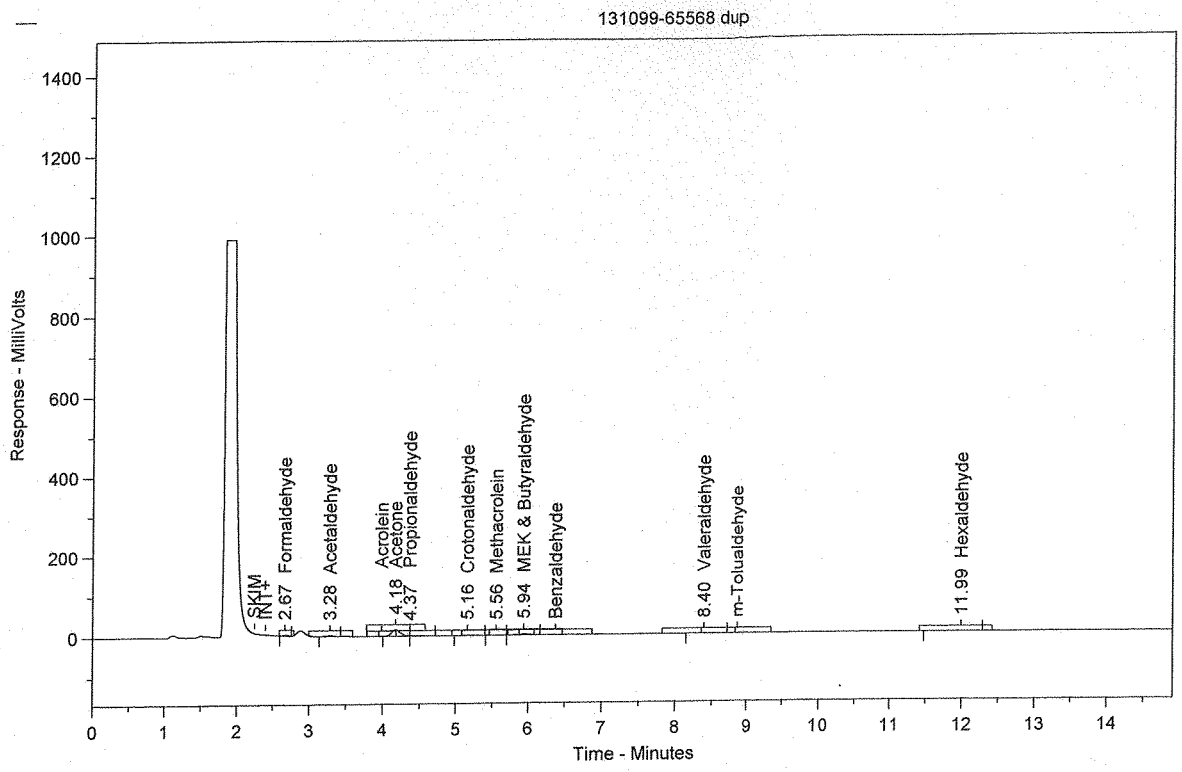
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 24
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.66	Formaldehyde	0.0122	2.584	7868	4.054	BB	0.13
2	3.27	Acetaldehyde	0.0295	6.242	15606	8.041	BB	0.12
3	4.17	Acetone	0.3102	65.570	129185	66.560	SBB	0.13
4	4.36	Propionaldehyde	0.0198	4.177	8172	4.211	TBB	0.12
5	5.16	Crotonaldehyde	0.0204	4.307	7746	3.991	BB	0.17
6	5.56	Methacrolein	0.0081	1.722	3276	1.688	BV	0.14
7	5.94	MEK & Butyraldehyde	0.0520	10.997	16843	8.678	VB	0.17
8	8.36	Valeraldehyde	0.0103	2.182	2882	1.485	BB	0.40
9	11.95	Hexaldehyde	0.0105	2.218	2508	1.292	BB	0.29

Total Area = 194087 Total Height = 22630.36 Total Amount = 0.473129



Sample Name = **131099-65568 dup**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0025.RAW**
Date Taken (end) = 8/22/2013 12:41:03 PM

Method File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0025.BND
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0025.BND
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

Vial Number = 25
Dilution Factor = 1

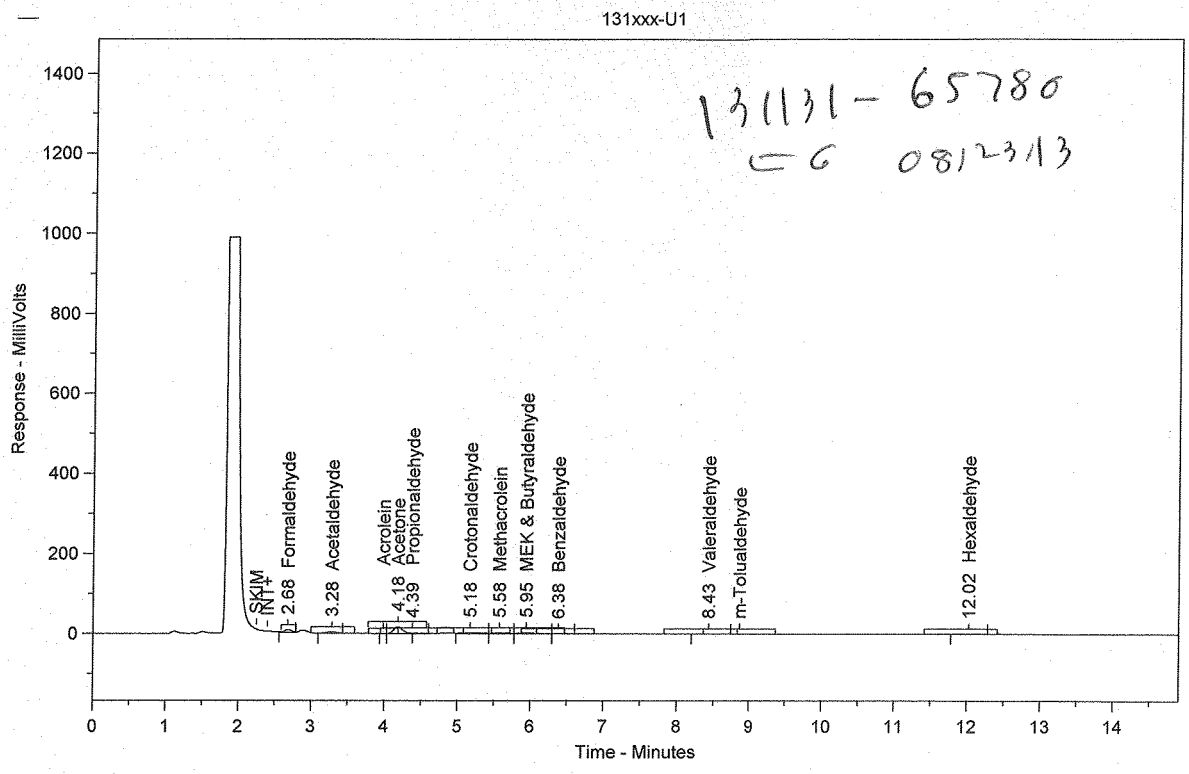
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.67	Formaldehyde	0.0120	2.549	7725	4.006	BB	0.12
2	3.28	Acetaldehyde	0.0289	6.141	15282	7.925	BB	0.12
3	4.18	Acetone	0.3084	65.491	128429	66.601	BV	0.13
4	4.37	Propionaldehyde	0.0190	4.031	7848	4.070	VV	0.12
5	5.16	Crotonaldehyde	0.0199	4.232	7576	3.929	VB	0.17
6	5.56	Methacrolein	0.0072	1.525	2888	1.498	BV	0.14
7	5.94	MEK & Butyraldehyde	0.0546	11.597	17679	9.168	VB	0.17
8	8.40	Valeraldehyde	0.0104	2.206	2900	1.504	BB	0.34
9	11.99	Hexaldehyde	0.0105	2.229	2508	1.300	BB	0.28

Total Area = 192834.5

Total Height = 22619.08

Total Amount = 0.4709261

HP
08/22/13



131131-65780
C 08/23/13

Sample Name = **131xxx-U1** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0031.RAW**
Date Taken (end) = 8/22/2013 2:30:00 PM

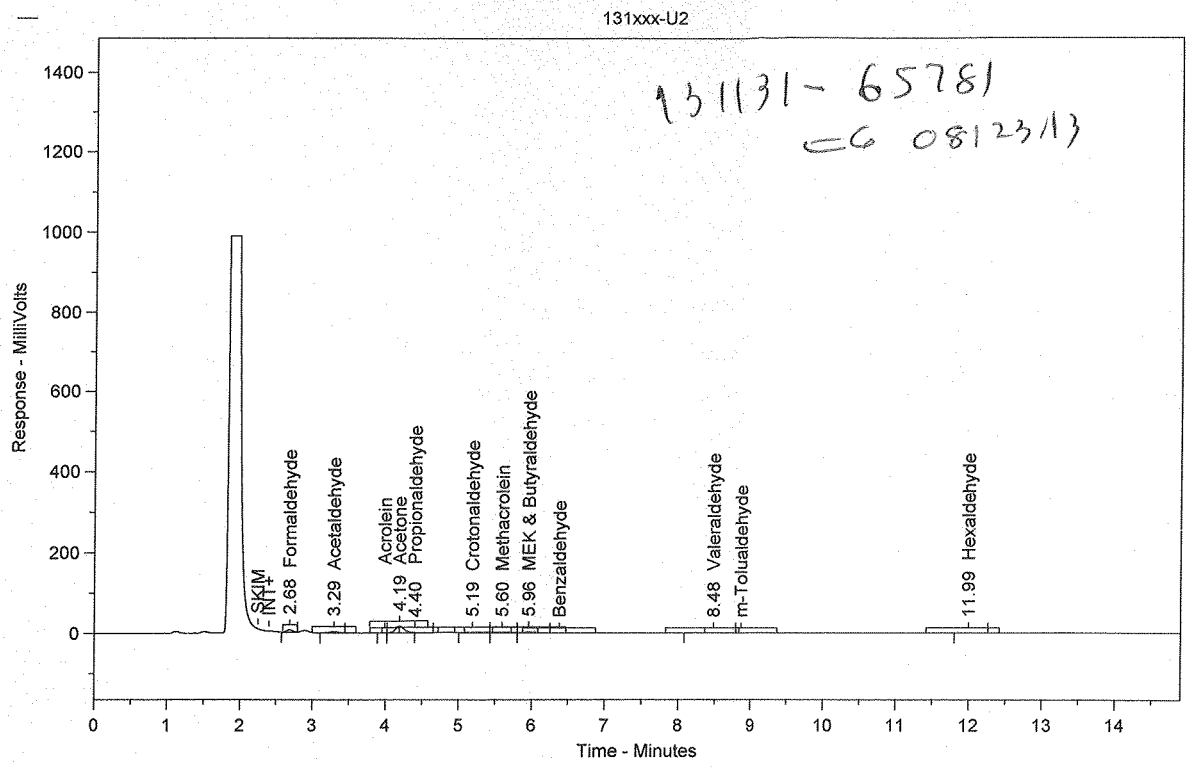
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 31
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.0685	8.285	44092	12.787	BB	0.10
2	3.28	Acetaldehyde	0.0568	6.868	30012	8.704	BB	0.12
4	4.18	Acetone	0.3459	41.821	144025	41.770	SBB	0.13
5	4.39	Propionaldehyde	0.0220	2.656	9083	2.634	TBB	0.10
6	5.18	Crotonaldehyde	0.1096	13.249	41654	12.080	BV	0.22
7	5.58	Methacrolein	0.0780	9.427	31348	9.091	VV	0.23
8	5.95	MEK & Butyraldehyde	0.0999	12.075	32328	9.376	VV	0.20
9	6.38	Benzaldehyde	0.0049	0.588	1287	0.373	VB	0.21
10	8.43	Valeraldehyde	0.0258	3.122	7207	2.090	BB	0.32
11	12.02	Hexaldehyde	0.0158	1.909	3771	1.094	BB	0.27

Total Area = 344807.7 Total Height = 35371 Total Amount = 0.8270131



Sample Name = **131xxx-U2** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0032.RAW**
Date Taken (end) = 8/22/2013 2:46:39 PM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 32
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.0559	7.477	35965	11.468	BB	0.10
2	3.29	Acetaldehyde	0.0561	7.511	29669	9.460	BB	0.12
4	4.19	Acetone	0.3514	47.005	146327	46.659	SBB	0.13
5	4.40	Propionaldehyde	0.0203	2.714	8391	2.675	TBB	0.10
6	5.19	Crotonaldehyde	0.0802	10.726	30484	9.720	BV	0.21
7	5.60	Methacrolein	0.0676	9.045	27189	8.670	VV	0.19
8	5.96	MEK & Butyraldehyde	0.0824	11.018	26663	8.502	VB	0.19
9	8.48	Valeraldehyde	0.0218	2.915	6085	1.940	BB	0.35
10	11.99	Hexaldehyde	0.0119	1.590	2839	0.905	BB	0.26

Total Area = 313611.9 Total Height = 32871.88 Total Amount = 0.747575

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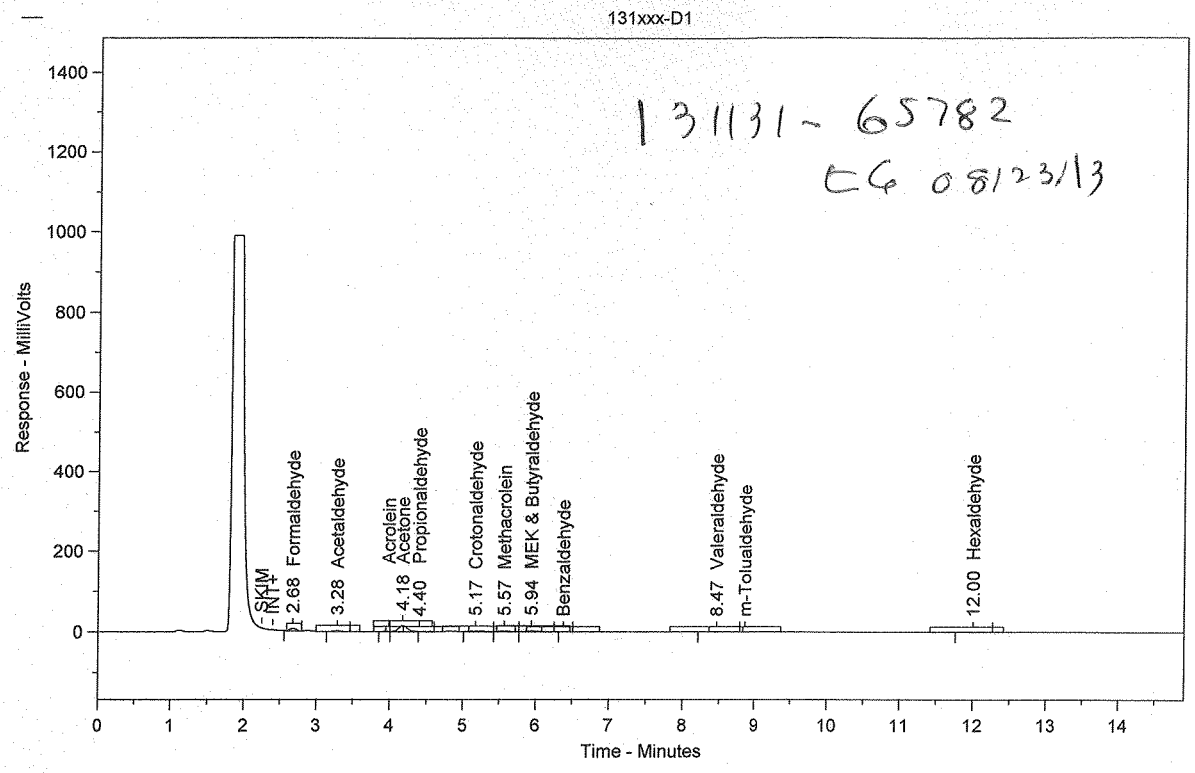


131131-65782
EG 08/23/13

Sample Name = **131xxx-D1** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0029.RAW**
Date Taken (end) = 8/22/2013 1:56:42 PM

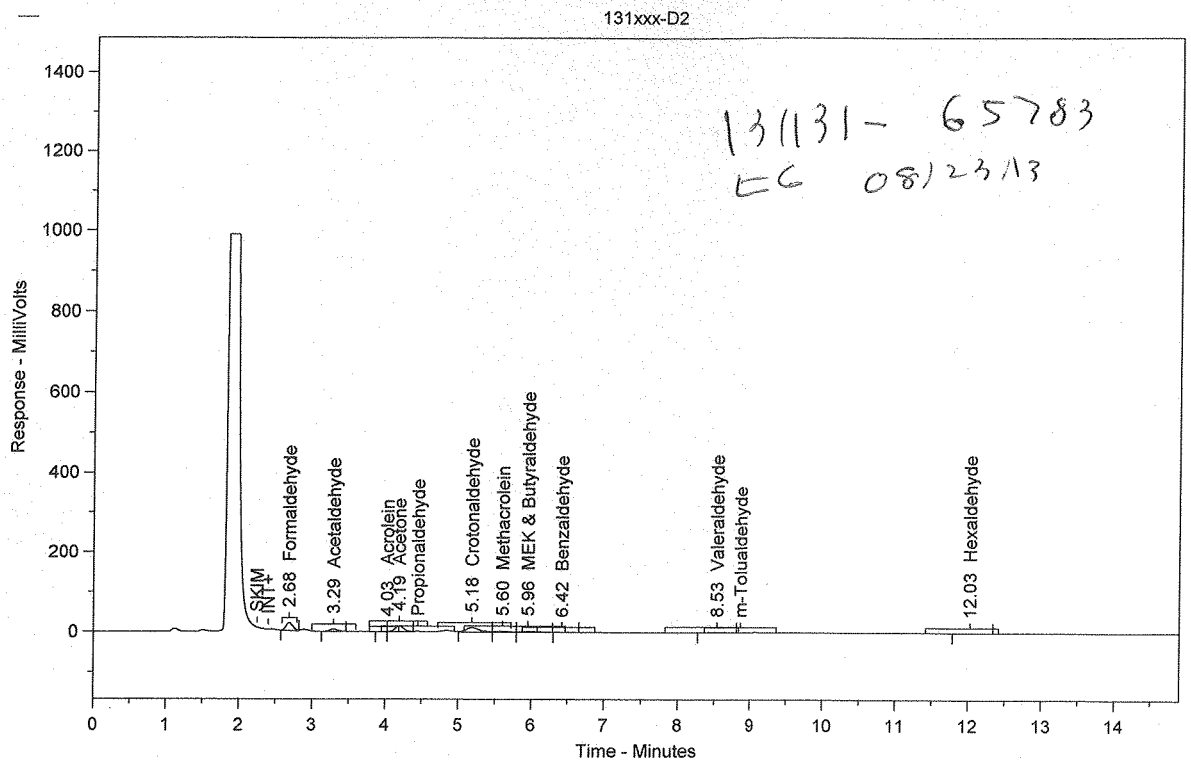
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 29
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.0577	9.177	37124	14.076	BB	0.11
2	3.28	Acetaldehyde	0.0313	4.977	16533	6.269	BB	0.12
4	4.18	Acetone	0.3087	49.099	128532	48.735	SBB	0.13
5	4.40	Propionaldehyde	0.0141	2.246	5838	2.214	TBB	0.11
6	5.17	Crotonaldehyde	0.0642	10.211	24403	9.253	BV	0.19
7	5.57	Methacrolein	0.0494	7.858	19864	7.532	VV	0.21
8	5.94	MEK & Butyraldehyde	0.0695	11.062	22512	8.536	VB	0.18
10	8.47	Valeraldehyde	0.0214	3.408	5981	2.268	BB	0.33
11	12.00	Hexaldehyde	0.0123	1.962	2947	1.117	BB	0.26

Total Area = 263735 Total Height = 28388.34 Total Amount = 0.6286561



131131- 65783
EC 08/23/13

Sample Name = **131xxx-D2**

Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0030.RAW**
Date Taken (end) = 8/22/2013 2:13:21 PM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

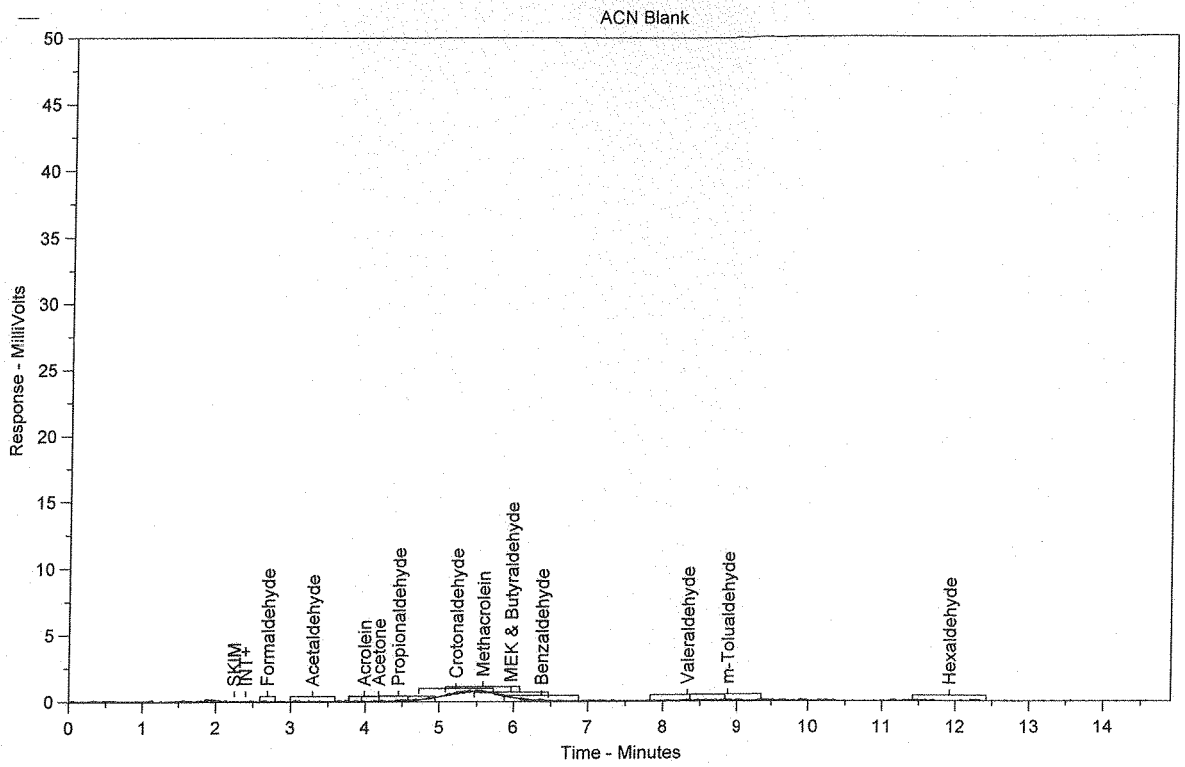
Vial Number = 30
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.2006	16.641	129059	24.720	BB	0.10
2	3.29	Acetaldehyde	0.0838	6.954	44290	8.483	BB	0.12
3	4.03	Acrolein	0.0031	0.256	1478	0.283	BV	0.05
4	4.19	Acetone	0.2968	24.627	123600	23.674	VB	0.13
5	5.18	Crotonaldehyde	0.3662	30.385	139218	26.666	BV	0.17
6	5.60	Methacrolein	0.0829	6.878	33335	6.385	VV	0.17
7	5.96	MEK & Butyraldehyde	0.0881	7.308	28515	5.462	VV	0.21
8	6.42	Benzaldehyde	0.0128	1.060	3380	0.647	VB	0.22
9	8.53	Valeraldehyde	0.0558	4.633	15591	2.986	BB	0.25
10	12.03	Hexaldehyde	0.0151	1.256	3618	0.693	BB	0.27

Total Area = 522084.4

Total Height = 56610.89

Total Amount = 1.20525



Sample Name = **ACN Blank** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0034.RAW**
Date Taken (end) = 8/22/2013 3:19:55 PM

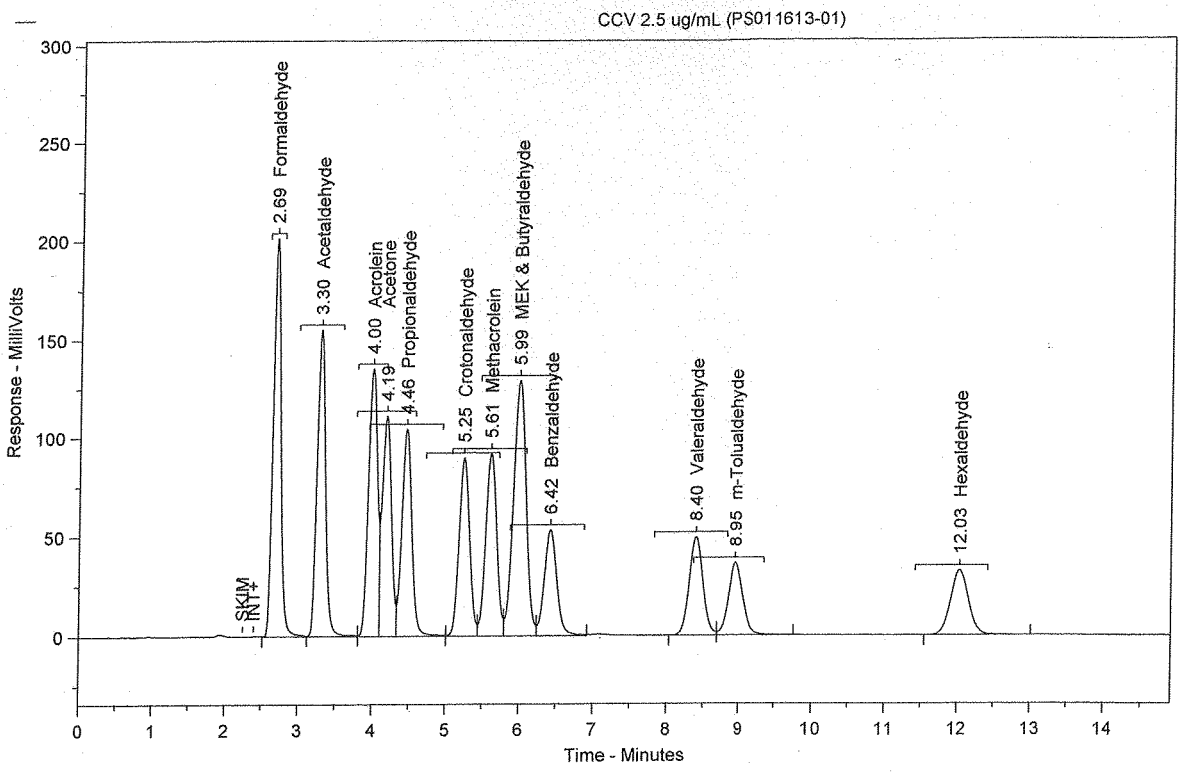
Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 34
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width

Total Area = 0 Total Height = 0 Total Amount = 0



Sample Name = **CCV 2.5 ug/mL (PS011613-01)** Instrument = HPLC #1

Raw File Name = **C:\Chromeperfect 2\Data\HPLC #1\2013\082213TO-11\082213.0035.RAW**
Date Taken (end) = 8/22/2013 3:36:34 PM

Method File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889 Vial Number = 35
Injection Volume = 10 Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	2.2992	7.568	1479446	12.883	SBB	0.11
2	3.30	Acetaldehyde	2.3403	7.703	1236663	10.768	TBV	0.12
3	4.00	Acrolein	2.3307	7.671	1116729	9.724	TVV	0.14
4	4.19	Acetone	2.3363	7.690	972880	8.472	TVV	0.14
5	4.46	Propionaldehyde	2.3536	7.747	973196	8.474	TVV	0.14
6	5.25	Crotonaldehyde	2.3330	7.679	886904	7.723	TVV	0.15
7	5.61	Methacrolein	2.3377	7.694	939985	8.185	TVV	0.15
8	5.99	MEK & Butyraldehyde	4.6927	15.446	1519158	13.228	TVV	0.18
9	6.42	Benzaldehyde	2.3628	7.777	625028	5.443	TVB	0.18
10	8.40	Valeraldehyde	2.3197	7.635	647611	5.639	BV	0.20
11	8.95	m-Tolualdehyde	2.3156	7.622	522568	4.550	VB	0.22
12	12.03	Hexaldehyde	2.3603	7.769	563946	4.911	BB	0.27

Total Area = 1.148411E+07 Total Height = 1187265 Total Amount = 30.38198

File Name = C:\Chromeperfect 2\Methods and Sequences\#1 HPLC #1\2013\082213 (TO-11).SEQ
File Date = 8/22/2013 12:42:57 PM
Analyst=

Entry #	Raw File Name	Method File Name	Sample Name	Vial #	DF
1	082213.0001.raw	061113 TO-11A.MET	ACN Blank	1	1
2	082213.0002.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS061113-01)	2	1
3	082213.0003.raw	061113 TO-11A.MET	SS 2.50 ppm (PS011613-01)	3	1
4	082213.0004.raw	061113 TO-11A.MET	TO-11 Method Blank	4	1
5	082213.0005.raw	061113 TO-11A.MET	LCS Blank	5	1
6	082213.0006.raw	061113 TO-11A.MET	LCS .379ug/mL (PS011013-01)	6	1
7	082213.0007.raw	061113 TO-11A.MET	MS 131114-65647 1.25 ppm [(PS061113-01x2]	7	1
8	082213.0008.raw	061113 TO-11A.MET	MSD 131114-65647 1.25 ppm [(PS061113-01x2]	8	1
9	082213.0009.raw	061113 TO-11A.MET	131114-65647	9	1
10	082213.0010.raw	061113 TO-11A.MET	131114-65647 dup	10	1
11	082213.0011.raw	061113 TO-11A.MET	131114-65639	11	1
12	082213.0012.raw	061113 TO-11A.MET	ACN Blank	12	1
13	082213.0013.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	13	1
14	082213.0014.raw	061113 TO-11A.MET	131114-65640	14	1
15	082213.0015.raw	061113 TO-11A.MET	131114-65640 dup	15	1
16	082213.0016.raw	061113 TO-11A.MET	131114-65641	16	1
17	082213.0017.raw	061113 TO-11A.MET	131114-65642	17	1
18	082213.0018.raw	061113 TO-11A.MET	131114-65643	18	1
19	082213.0019.raw	061113 TO-11A.MET	131114-65644	19	1
20	082213.0020.raw	061113 TO-11A.MET	131114-65645	20	1
21	082213.0021.raw	061113 TO-11A.MET	131114-65646	21	1
22	082213.0022.raw	061113 TO-11A.MET	ACN Blank	22	1
23	082213.0023.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	23	1
24	082213.0024.raw	061113 TO-11A.MET	131099-65568	24	1
25	082213.0025.raw	061113 TO-11A.MET	131099-65568 dup	25	1
26	082213.0026.raw	061113 TO-11A.MET	131099-65569	26	1
27	082213.0027.raw	061113 TO-11A.MET	131099-65570	27	1
28	082213.0028.raw	061113 TO-11A.MET	131099-65571	28	1
29	082213.0029.raw	061113 TO-11A.MET	131xxx-D1	29	1
30	082213.0030.raw	061113 TO-11A.MET	131xxx-D2	30	1
31	082213.0031.raw	061113 TO-11A.MET	131xxx-U1	31	1
32	082213.0032.raw	061113 TO-11A.MET	131xxx-U2	32	1
33	082213.0033.raw	061113 TO-11A.MET	ACN Blank	33	1
34	082213.0034.raw	061113 TO-11A.MET	ACN Blank	34	1
35	082213.0035.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	35	1